HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE PREPARED BY THE DEPARTMENT OF HEALTH AND SOCIAL SECURITY

VOLUME 15, NO. 12, ABSTRACTS 1680-1833. DECEMBER 1975

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HOSPITAL ABSTRACTS

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HOSPITALS IN GREAT BRITAIN

See Abstract No. 1807

HOSPITALS IN OTHER COUNTRIES

1680. DOAN, B.-D.-H. **Analysis of some trends in the development of hospital facilities in Europe.** *World Health Statistics Report*, Geneva, 1975, vol. 28, no. 9, pp. 364-386.

The results of annual questionnaires sent out by the World Health Organization to member states requesting statistical data on their hospitals and other medical establishments with beds are published in the *World health statistics annual.* An analysis of the chronological series has now been produced, and various findings are summarized. Several conclusions have been drawn: (i) since some of the data is of poor quality the results cannot claim to be fully reliable; (ii) abrupt changes in density each year can be attributed to differences in definition; (iii) the figures do not always cover the same elements in each country; (iv) there is an urgent need to improve data collection; (v) there is a need to link trends in hospital facilities with changes in other factors, e.g. bed density compared with bed utilization indices; (vi) it is important to observe and analyse the organizational consequences of the variation in bed density; and (vii) it appears advisable to direct activities towards an analysis of structures, after having analysed hospital facilities. Statistical tables are included.

1681. HJORT, P. F. Hvilken rolle skal sykehuset spille i det totale helsevesen? **[What role will the hospital play in the total health service?]** *Sykehuset*, Oslo, 1975, vol. 38, no. 6, pp. 299-308.

The hospital has six roles to play in society: curative medicine, care, preventive medicine, teaching, research, and local politics (as a major employer). Financial and staff resources are limited, and hospitals must adjust to a lower rate of growth in favour of the low level care and primary health services. The Norwegian hospital system is an hierarchical one, with local, central, regional and national hospitals, and in an hierarchical system everyone (patients, politicians and doctors) strives to rise to the highest practicable level—or beyond. Against this, the Norwegians attempt to operate the LEON principle—every patient treated at the Lowest Effective Level of Organization—which does not work because of human nature. Doctors and seriously ill patients want big hospitals; a local population and its politicians demand little ones, however ineffective and uneconomical they may be. Despite the political will to delegate the national (specialist) hospital functions out to the regions, decentralization is a slow and difficult process. The health services are a major industry with three nearly watertight sectors: the primary health services, the hospitals and the nursing homes, the hospitals employing over half the staff: a much higher degree of integration is required. More

research is necessary to ensure that the money voted by the politicians can do the most good.

1682. **RAF Hospital, Wegberg.** *Nursing Mirror*, London, 1975, Sept. 25, vol. 141, no. 13, pp. 60-62.

The Royal Air Force Hospital, Wegberg, Germany, was the first British hospital to be built after the Second World War. It is a 220-bed general hospital with consultants in all the major specialties. About 7,000 in-patients are admitted annually and 30,000 out-patient appointments are held. The hospital is staffed by 240 servicemen and women and 220 civilians, and provides essential services for the whole area. There is a dental laboratory, a diagnostic X-ray department, a large pathology laboratory, and an intensive care unit. There is also a section trained in 'in-flight' techniques on call to take patients to England. There is a school of nursing, with a planned input of three pupil nurse courses per year, each course consisting of 15 pupils (male and female) for a two-year training; in addition student nurses from RAF hospitals in England come to Wegberg for paediatric experience.

PLANNING, DESIGN AND CONSTRUCTION

1683. **British hospitals home and overseas. 11th edition.** Maidstone, Whitehall Press, 1975, 68pp. £2.00.

Like its predecessors, this edition presents brief descriptions of a number of British building and equipment projects, both in Great Britain and overseas.

1684. ZIMMERMAN, J. P. **Service areas and their needs must be reassessed.** *Hospitals*, Chicago, 1975, Sept. 1, vol. 49, no. 17, pp. 46-48.

Metropolitan hospitals in America find it increasingly difficult to define service areas. Existing and proposed federal legislation provides an opportunity for hospitals to redefine their role and take on more responsibility in the community. The main reasons why patients select a particular hospital are: (i) accessibility; (ii) medical staff appointments; (iii) scope of hospital services; (iv) referral patterns; (v) ambulance policies; (vi) personal contacts; (vii) circumstance; (viii) cost; (ix) accommodation; and (x) waiting time. Several suggestions have been put forward for defining service areas, involving the use of an 'index of commitment' and an 'index of relevance', the former refers to the proportion of hospital resources committed to serving the area, the latter refers to the extent the population of a given area uses the hospital. The indexes can be useful for evaluating the use of a hospital's resources in the overall health system, and for examining the characteristics of residents in relation to the services available. The new legislation offers an opportunity for a reassessment of population and area by hospitals, but the ultimate test will be to see how ready the hospitals are to accept change.

SELECTION OF SITE: ACQUISITION OF LAND

See Abstract No. 1810

DESIGN OF INDIVIDUAL GENERAL HOSPITALS

1685. **Cumberland Infirmary, Carlisle.** *Nursing Mirror*, Sutton, Surrey, 1975, Oct. 16, vol. 141, no. 16, pp. 72-74.

The new six-storey block, opened on 10 February 1975, of the Cumberland Infirmary, Carlisle, is the latest in a sequence of extensions that have taken place since 1873. The Public Infirmary in Carlisle was built in 1830 providing 40 beds for a population of 33,000. The new block provides 244 beds: 60 medical, 120 surgical, 54 children's and 10 intensive care. A £77,000 day hospital for the elderly has also been opened providing medical treatment and rehabilitation for up to 35 old people a day. The staff residential area was completed in 1970 at a cost of £115,000 but work is expected to begin this year on a further block of staff residential accommodation.

1686. PALMER, H. En provins til landet lagt. **[A region prepares new pastures.]** *Sykehuset*, Oslo, 1975, vol. 38, no. 6, pp. 320-332.

All patients were transferred to the new 433-bed, Oppland County Hospital, Lillehammer (architects: L. Bjørke and A. Pettersen), in three hours on 28 April 1975, and the official opening took place in August. The old buildings are to be reconstructed to house administration and doctors' offices, waiting rooms, out-patient departments, physiotherapy department, occupational therapy (in association with a 27-bed social medicine ward), cafeteria, hairdressers, branch bank and sub-post office. The main ward block in the new building is 13 storeys high. There are 88 single, 16 double and 70 four-bed rooms. The five-storey podium block at the base of the tower contains a 33-bed observation, recovery, intensive therapy and dialysis ward, as well as admissions, waiting rooms, consulting rooms, casualty, radiology, laboratory, clinical physiology and nuclear medicine departments. There are also three teaching auditoria. The paper is illustrated with 14 floor plans.

DESIGN OF SPECIAL DEPARTMENTS

See also Abstract No. 1756 (Diagnostic X-ray)

1687. Le bloc opératoire à flux laminaire du centre chirurgical Marie-Lannelongue à Paris. **[Operating suite with laminar air flow, Marie-Lannelongue Surgical Centre, Paris.]** *Techniques Hospitalières*, Paris, 1975, May, vol. 31, no. 356, pp. 63-65.

The first operating suite with laminar air flow in France designed for thoracic operations was installed in 1972 in Marie-Lannelongue Surgical Centre. The suite occupies the whole top floor and is isolated from the rest of the hospital. It includes offices, store rooms for materials in the aseptic zones, a room for washing instruments and a waiting room. The zone of access to the operating theatre for staff and patients includes exit and entry cloak-rooms, surgeons' room, air locks, and two pre-anaesthesia rooms. There are two operating theatres. The whole suite, with the exception of the operating theatre, is air-conditioned. The air is extracted to the circulation corridor which has a depressed pressure. The air in the operating theatre contains less than four particles per litre which gradually increases to 4,000 particles in other parts of the suite. All partitions are air-tight, there is a pneumatic tube system for the despatch of

samples and staff have to observe a rigorous discipline. During the past two years the system has proved to be very satisfactory and there was a remarkable drop in post-operative infections. It saves time and work—the suite does not have to be washed every week, septic patients can be operated upon before clean patients, and the rotation of patients is quicker. A plan of the suite is included.

1688. **St. John's Hospital, Stone, Bucks: industrial training unit.** *Hospital Development*, London, 1975, Sept./Oct., vol. 3, no. 5, pp. 10-11.

The new £55,000 extension to the industrial workshop at St. John's [psychiatric] Hospital, Stone, allows for the continuation of the division of the patients into four groups of 25 patients each. The four groups are housed in one large space, formed in such a way that it has the feeling of four distinct areas while still allowing for supervision and control. An open courtyard separates it visually and acoustically from the existing workshop. The S-shaped plan allows for good natural daylighting, a roof overhang to prevent glare and reasonable staff and goods circulation between the new building and the extension. A plan and two photographs of the unit are included.

1689. CURRY, W. **Suburban hospital builds showcase ICU.** *Hospitals*, Chicago, 1975, Aug. 16, vol. 49, no. 16, pp. 66-68.

The 14-bed intensive care unit at South Surburban Hospital, Hazel Crest, Ill., is on the first floor of the hospital and is separated from the emergency department only by a quiet corridor. It forms an entirely separate structure within the hospital complex, but there is easy access for ambulances, for transfers from the operating suite, and for transport to other departments. Particular attention has been paid to interior decoration and to the arrangement of equipment within the patients' rooms. A feature of the unit is the large skylight in the middle, making it frequently possible to operate the unit without artificial lighting. Six photographs of the unit but no plans are included.

DESIGN OF SPECIAL HOSPITALS OR UNITS

1690. BERGE, S. and LANOY, M. Le nouveau service des urgences de l'Hôpital Civil de Charleroi. **[New emergency department at Charleroi Civil Hospital.]** *Hôpital Belge*, Bruxelles, 1975, May/June, Vol. 18, no. 115, pp. 34-40.

The 715-bed Charleroi Civil Hospital is highly specialized and therefore admits all types of emergencies to its very modern emergency department described in this paper. Facilities include a special ambulance entrance, waiting room, examination room containing an electrocardiograph, room for cleaning and resuscitating patients, plaster and X-ray rooms, nursing station, blood bank, minor operating theatre, doctors' and nurses' rooms, cloak-rooms and toilets. Seriously ill patients are immediately transferred to the well-equipped intensive care service, which consists of a four-bed coronary care unit, six-bed general intensive care unit, haemodialysis unit equipped with six artificial kidneys, hyperbaric therapy unit and X-ray unit. Provisional short-stay care is provided in an appropriately equipped four-bed room. There are also eight beds for other patients. Fifteen doctors are attached to the emergency department on rotation as well as various specialists who are on call. Each day three doctors are on duty. Nursing staff

consists of seven qualified nurses and five certificated nurses in the provisional care section. A plan and seven photographs of the department are included.

1691. **Modern concepts in hospital.** *Health and Social Service Journal*, London, 1975, Oct. 11, vol. 85, no. 4460, p. 2287.

The Newton Green Wing for geriatric patients, Chapel Allerton Hospital, Leeds, was officially opened on 26 September 1975. Costing nearly £1,200,000, the wing took 3½ years to build. The keystone of Newton Green is the day hospital catering for both in- and out-patients, blending treatment and social activities with the emphasis on rehabilitation. The three-storey block contains six wards, each with accommodation for 32 patients in single and four-bed rooms and four-bed bays. There is an admission ward, two rehabilitation wards, two long/medium-stay wards and a ward for patients under 65 who suffer from illnesses associated with old age.

1692. RAUBER, H. and others. Probleme bei der Planung von Pflege und Altenheimen. **[Problems connected with the planning of nursing homes for the aged.]** *Bauen + Wohnen*, Zürich, 1975, July/Aug., vol. 29, nos. 7/8, pp. 297-298.

The authors have designed a nursing home for geriatric patients which has two 28-bed wards on each of three floors and a special ward for disturbed patients on the fourth floor. Between each pair of wards is a central core containing lifts, stairs, technical installations, refuse and laundry chutes. The wards have a 'family group' design without long institutional corridors. Administrative and support services are on the ground floor and in the basement. The value of such nursing homes is emphasized, together with the need to provide planners with fully detailed information on requirements.

1693. Krankenheim Asyl Gottesgnad Köniz bei Bern. **[Gottesgnad nursing home, Köniz near Berne.]** *Bauen + Wohnen*, Zürich, 1975, July/Aug., vol. 29, nos. 7/8, pp. 299-301.

This nursing home (architects: Eduard Helfer, Anton Ammon, Hans Aebi, Otto Guggisberg and Livio Ferrari) provides facilities for bedridden, ambulant and wheelchair mobile patients. It contains 174 beds on six floors, each floor having three single, five double and three four-bed rooms with balconies on to which bedridden patients can be taken. Each floor also has an observation room, two isolation rooms, a tea kitchen, various lavatories and a large terrace. Complete floor to ceiling glazing is used to provide optimum views and a 60cm. wide service balcony outside the windows helps to prevent a possible fear of heights. Lifts are available for wheelchair and ambulant patients. The extensive and attractive gardens have special play and mobility apparatus for the use of disabled patients. Step-free paths run through the garden and the nearby woods. Four photographs, three floor plans, a site plan and an elevation are included.

1694. **New unit for the physically ill at mental handicap hospital.** *Nursing Mirror*, Sutton, Surrey, 1975, Sept. 25, vol. 141, no. 13, pp. 41-42.

A new unit has been opened at the Manor Hospital, Epsom, Surrey, to treat patients who are physically ill and mentally handicapped. The new unit, Galen Ward, centralizes all equipment and specialist staff, where previously there had been two wards, segregated

by sex, duplicating stock and staff. Galen Ward has a day/dining area, two dormitories, one for male and one for female patients, a dental surgery, ophthalmology department, anaesthetic recovery room, and visiting consultants' room. One wing of the unit has also been altered to provide an eight-bed nurses' infirmary.

DOCTORS' QUARTERS

1695. **General Infirmary, Leeds: renovation of the doctors' residences.** *Hospital Development*, London, 1975, Sept./Oct., vol. 3, no. 5, p. 12.

Medical staff residential accommodation at the Leeds General Infirmary is being renovated in five stages to reduce disruption to a minimum. The building has been respected and restored, where possible, and advantage taken of its architectural features. In the first phase, 14 bedrooms, some rising to fully 18 feet but not up to modern standards, and others on a mezzanine floor of more domestic dimensions, have been replaced by 12 bed-sitting-rooms, including two double rooms, two utility rooms and new baths and showers. Open wooden staircases have been replaced and all the services updated with a new plant room over the bathroom. The lofty rooms have been made to work by introducing galleries with companion-way access, whilst there are smaller rooms on the mezzanine floor. Brief details are given of the interior design. Three photographs are included.

ENGINEERING SERVICES

1696. MONTGOMERY, S. R. **Engineering and medicine.** *Hospital Engineering*, Stevenage, 1975, Oct., vol. 29, pp. 18-21, 23-25, 27.

This paper considers the role of engineers in hospitals and their inter-relation between medicine and building services. It presents observations on the problems facing hospital and medical engineers when considering health, and how engineering can contribute to it. Medicine, engineering maintenance, supply and demand, the various daily aspects presented by hospitals and attitudes that have to be considered, and the role of the hospital in the local community, all these are vital considerations for the engineer. Medical science and engineering science have made great progress in the past century, but it is the long-term implications that now have to be assessed. There is a time lag, in both sciences, between the application of a technological innovation and the time its secondary effects take place. This aspect must be considered when formulating new policies.

INSTALLATIONS IN GENERAL

1697. OLSEN, O. H. VVS på K.A.S. Herlev. **[Heating, ventilation and sanitation at Herlev Hospital.]** *VVS*, København, 1975, April, vol. 11, no. 4, pp. 154-156, 159-162.

The new 30-storey Copenhagen County Hospital at Herlev (architects: Bornebusch, Brüel & Selchau) is due to be opened in April 1976. The south elevation is characterized by 19 semicircular towers carrying the ventilation channels and mains into the building. All conduits and pipes are borne in shafts, engineers' tunnels, etc.; none are walled or

concreted in. To allow for extensions, all plumbing, etc. has been carried out in blocks of 225 sq.m. floor area. A 7,500 cu.m. concrete underground basin has been constructed for run-off water; half of this water will be used for steam raising and cooling tower circulation. Medical and other gases are supplied centrally. Seven main oxygen pipelines supply the entire hospital and N_2O, compressed air and vacuum systems are distributed throughout the buildings. Water at 6°C is circulated throughout the hospital for cooling purposes. Heat is supplied from the local authority district heating system, which incinerates rubbish. Low pressure steam is used for humidification in the air-conditioning system and for cleaning bed-pans; medium pressure steam is used in the autoclaves. Air-conditioning is effected via a filtered two-channel system, air being sucked in through a 23 m. high, 25 sq.m. exterior tower. All technical installations are under the supervision of a central control room manned round the clock, and with a direct line to the fire brigade. Maintenance tasks are planned by computer. All important systems have automatically operated emergency systems in reserve. The paper is illustrated by an aerial view of the hospital, plans of the site, one of the 25 normal ward floors and the treatment storey, and cross sections of the treatment block.

COMMUNICATION SYSTEMS

See Abstract No. 1800

HEATING

See Abstract No. 1697

BOILERS AND BOILER HOUSES

1698. **New-look boiler house.** *Hospital Engineering*, Stevenage, 1975, Oct., vol. 29, pp. 7, 9.

Extensive structural alterations are being carried out at the 191-bed Montagu Hospital, Mexborough, South Yorkshire. A new boiler plant has also been installed at a cost of £80,000. It provides all the heat needed for the hospital including central heating, sterilization, domestic hot water and cooking. The building is designed for three GWB Vekos boilers, but so far only two have been installed, each of 1.68 MW (5,700 lb./h. of steam).

VENTILATION AND AIR-CONDITIONING

See also Abstract Nos. 1687, 1697, 1751, 1771

1699. JACKMAN, P. J. and POTTER, I. N. **Natural ventilation of large hospital buildings.** *Hospital Engineering*, Stevenage, 1975, Oct., vol. 29, pp. 11, 13-17.

Recent trends in hospital design have given rise to concern over the effectiveness of natural ventilation in producing continually adequate air flow rates for the patients. The incorporation of courtyards is thought to be the answer to the lighting and ventilation problem, and such a design concept is incorporated into the Harness

hospital scheme proposed by the Department of Health and Social Security. Wind-tunnel tests of hospital scale models were carried out and a computer program was used to predict the internal air-flows. The technique was applied to a Harness hospital and it was found that the ventilation generated by wind forces in ward areas would not be consistently adequate for the comfort and well-being of patients.

EQUIPMENT, FITTINGS, FURNITURE

INTERIOR DECORATION

1700. **Interior design supports psychiatric therapy.** *Hospitals*, Chicago, 1975, Aug. 16, vol. 49, no. 16, pp. 27, 30, 32.

This paper shows how contemporary, attractive interior designs have helped to reinforce treatment in four new psychiatric facilities: (i) the 21-bed in-patient unit at Newton Wellesley (Mass.) Hospital; (ii) the 23-bed in-patient and partial hospitalization unit at Waltham (Mass.) Hospital; (iii) the 66-bed Commonwealth Psychiatric Center, Richmond, Va.; and (iv) the 99-bed Elmcrest Psychiatric Institute, Portland, Conn. Brief details of the interior design of each are given and there is a colour photograph of a feature of each of the facilities.

EQUIPMENT GENERALLY

See Abstract No. 1683

STAFF GENERALLY

1701. ROBB, J. H. **Power, profession and administration: an aspect of change in English hospitals.** *Social Science & Medicine*, Oxford, 1975, July, vol. 9, no. 7, pp. 373-382.

Power relationships between professionals in the same organization are examined in this paper in the light of data on the administration of English hospitals. The organization of senior medical, senior nursing and administrative staff within hospitals is described and the relationships between these three professional groups inside the hospital is analysed. Problems arising both from structural relationships and from conflicts over possible changes in relative levels of power between the groups are examined and some consequences of these conflicts are described. Some general implications for studies of the roles of professionals in organizations are suggested.

STAFF COMPLEMENTS

See also Abstract No. 1715

1702. DEGARDIN, C. Structure des effectifs hospitaliers et indices de personnel. **[Hospital staff structure and staff indices.]** *Gestions Hospitalières*, Mantes, 1975, June/July, no. 147, pp. 523-526, 531-534.

This study, based on French Ministry of Health statistics, analyses hospital staff

structure. The main feature, which is stressed, is the absence of a fundamental change in the distribution of various categories of staff since 1965. On an average nursing and medical staff represent 75 per cent and administrative and general staff 25 per cent of the total staff. Attention is drawn to the importance of the technical staff; laboratory, radiology and pharmacy staff represent only four per cent of the total staff, but these services produce 43 per cent of the recovered medical fees and their staff has shown the greatest increase of over 70 per cent since 1965, mostly in laboratories. Since 1973 the number of nurses has been higher than the number of nursing assistants in all hospitals with the exception of rural hospitals where the situation is reversed. The ratio of two assistants to one nurse, which has been fixed by the French Hospital Federation, exists only in seven regions, in 10 regions the ratio is higher. The evolution of the proportion of administrative staff is more gradual, but there is a pronounced increase in the regional hospital centres; the proportion of general services staff is relatively stable. Radiology services have shown the greatest productivity in 1970 and 1971 in the hospital centres, and the laboratory services in the regional hospital centres. Pharmaceutical services employ on an average two technical staff to one pharmacist, but in the regional hospital centres there are four or five staff to one pharmacist. The high ratio of medical and nursing staff indicates the need for a serious study on the organization and the functioning of these services on the level of each hospital.

RECRUITMENT

See Abstract No. 1710

CONDITIONS OF SERVICE

See Abstract No. 1772

STAFF MANAGEMENT

See also Abstract No. 1716

1703. AFT, L. S., WATT, J. R. and THOMASON, C. Y. **Scheduling 7-day weeks poses equity problems.** *Hospitals*, Chicago, 1975, Sept. 1, vol. 49, no. 17, pp. 93-96.

This paper describes an improved and new cyclical staff scheduling procedure, which provides one way of ensuring fair treatment of staff. It is a matrix method which differs from conventional cyclic scheduling by giving two-day and three-day blocks of time off. The rotating cycle length approximates one week for each full-time non-supervisory employee involved. It must be scheduled at least one cycle in advance, which gives everyone ample time to plan activities. Flexibility for personal needs or emergencies is ensured by allowing technically qualified staff to substitute for each other. The steps in the procedure for preparing the schedule are outlined and examples of the matrix dimension calculation work sheet and matrix scheduling sheet are reproduced.

hospital scheme proposed by the Department of Health and Social Security. Wind-tunnel tests of hospital scale models were carried out and a computer program was used to predict the internal air-flows. The technique was applied to a Harness hospital and it was found that the ventilation generated by wind forces in ward areas would not be consistently adequate for the comfort and well-being of patients.

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STAFF MANAGEMENT

See also Abstract No. 1716

1703. AFT, L. S., WATT, J. R. and THOMASON, C. Y. **Scheduling 7-day weeks poses equity problems.** *Hospitals*, Chicago, 1975, Sept. 1, vol. 49, no. 17, pp. 93-96.

This paper describes an improved and new cyclical staff scheduling procedure, which provides one way of ensuring fair treatment of staff. It is a matrix method which differs from conventional cyclic scheduling by giving two-day and three-day blocks of time off. The rotating cycle length approximates one week for each full-time non-supervisory employee involved. It must be scheduled at least one cycle in advance, which gives everyone ample time to plan activities. Flexibility for personal needs or emergencies is ensured by allowing technically qualified staff to substitute for each other. The steps in the procedure for preparing the schedule are outlined and examples of the matrix dimension calculation work sheet and matrix scheduling sheet are reproduced.

STAFF RELATIONS

1704. EHRENREICH, B. and EHRENREICH, J. H. **Hospital workers: class conflicts in the making.** *International Journal of Health Services*, New York, 1975, vol. 5, no. 1, pp. 43-51.

There is a real and conscious need for hospital workers to have meaningful work and to be adequately recognized for this work, both materially and in terms of respect and status within the hospital. These needs are frustrated by the conditions of work in the large modern hospital. Two main stabilizing forces, operating in part on different sets of staff, prevent hospital workers from collectively asserting their needs against the hospital's priorities. For the unskilled and semi-skilled there are forces which lead to a typical industrial work ethic—alienation from the content of their work. For the skilled, there is the ideology of professionalism. The result is an increasing division of the non-managerial staff into two groups with opposing class identifications—a proletarianized group of semi-skilled and unskilled workers and a large group of skilled staff who are allowed to participate, through the ideology of professionalism, in the real status of the doctors.

1705. DAVIS, L. J. and FONER, M. **Organization and unionization of health workers in the United States: the trade union perspective.** *International Journal of Health Services*, New York, 1975, vol. 5, no. 1, pp. 19-26.

Recent legislation by the United States Congress has removed the right of exemption for private hospitals and nursing homes from the National Labor Relations Act, and has extended collective bargaining rights to the 1.5 million staff who work in voluntary hospitals. Fewer than 300,000 staff belong to any union and their depressed wage structures and job conditions have been highlighted. Many of the workers are women, black or Spanish-speaking, poor and unable to express themselves. The trustees of hospitals have also contributed to the lack of organization of hospital workers. The development of the union is traced from the 1930s to the 46-day strike in 1958; the introduction of technical and professional workers and the links with the Civil Rights movement led up to the national campaign in 1969, when a 113-day strike was held in Charleston, S.C. The benefits of creating a union include: (i) higher pay scales; (ii) dental and prescription drug coverage; (iii) scholarship funds; (iv) educational schemes; and (v) medical care for all members and their families. The broader social aims of the union are discussed. In conclusion, the creation of a national union is in sight, but much work will be needed to reorganize the hospital workers.

1706. MATCH, R. K., GOLDSTEIN, A. H. and LIGHT, H. L. **Unionization, strikes, threatened strikes, and hospitals—the view from hospital management.** *International Journal of Health Services*, New York, 1975, vol. 5, no. 1, pp. 27-36.

The history of the development of hospital unions is discussed together with the influences that are judged to be of importance for the establishment of union organizations. The role played by legislation in the development of the organization of hospital workers, together with the influences of the National Labor Relations Act, the Taft-Hartley amendments and local labour legislation is analysed. Hospital trustees and administrators have been largely against the scheme of collective bargaining because of

the social nature of hospitals for, whereas strikes are beneficial to the bargainers, they are detrimental to the hospitals and human life. Alternatives are suggested to strikes, these include: (i) fact finding; (ii) voluntary arbitration; and (iii) compulsory arbitration. Hospital unions have derived many benefits from the arbitration process, since the influence of local and state politicians and the methods of selection of arbitration panels support them throughout. Hospitals, however, have had to regulate cost increases and fight for economic viability. The authors believe that arbitration awards should be made by arbitrators appointed from outside the local region of the hospital, and because of the catastrophic effect strikes have upon patients and employees, all arbitration awards should be made binding upon both parties and federally enforced.

STAFF TRAINING

See also Abstract Nos. 1711, 1717, 1718, 1772, 1790

1707. **A guide to shared educational services.** *Hospitals*, Chicago, 1975, Aug. 1, vol. 49, no. 15, pp. 73-75; Aug. 16, vol. 49, no. 16, pp. 95-96, 98.

Hospitals now provide a wide range of education and training programmes; there are increasing pressures for them to accept still greater responsibilities in this field. A number of organizational approaches to the provision of staff training have been developed. One option is the use of services shared by one or more hospitals. The first part of this paper discusses four types of shared service: (i) referred, that is provided by one hospital for a group; (ii) jointly purchased, in which each hospital pays proportionately for a contracted service; (iii) a multisponsored service, jointly controlled and operated by the participating institutions; and (iv) a service sponsored by a local hospital association or similar body. The second part of the paper describes six steps in exploring, developing, implementing and evaluating a shared service: (i) assess the current situation; (ii) study the feasibility of sharing for the individual hospital; (iii) study the feasibility of sharing for the co-operating group; (iv) develop a plan for implementation; (v) begin implementation; and (vi) evaluate the service.

STAFF WELFARE

1708. BEDFORDSHIRE AREA HEALTH AUTHORITY. NORTHERN DISTRICT. **Bedford General Hospital Occupational Health Service: 7th and final report, 1st January, 1968-31st December, 1974.** Bedford, Bedfordshire Area Health Authority, Northern District, 1975, 46pp.

The occupational health service for staff at Bedford General Hospital was set up as a research project on 1 January 1968. This final report of the project outlines the development of the service and examines in detail its functions under seven headings: (i) medical examinations; (ii) immunizations; (iii) sickness absence recording; (iv) environmental investigations; (v) health education; (vi) routine daily cover and procedures for accidents and sickness at work and counselling; and (vii) advice to management. Statistical tables are included as appendices.

OTHER STAFF AMENITIES

1709. DROOG, P. M. **Day nursery project.** *Health and Social Service Journal*, London, 1975, Oct. 18, vol. 85, no. 4461, pp. 2336-2337.

In 1971, Manchester Royal Infirmary opened one of the first purpose-built hospital day nurseries, providing places for 25 children aged between six months and five years, at a capital cost of £12,000. This unit was intended primarily for nursing staff, but has also helped doctors, radiologists and technicians to return to work in a full- or part-time capacity. An extension was opened on 1 August 1975 to provide more places. The combined day nursery building provides 50 places, and the extension provides an additional 1,200 square feet of space. The nursery staff comprises one matron, one deputy matron, six nursery nurses, a full-time domestic and two pupil nurses. A comparative study has been carried out of all the hospital day nurseries in the Greater Manchester area. A table is included of the results. Recommendations made as a result of the survey include: (i) need for greater publicity within the hospitals of nursery facilities outside; (ii) need for parental involvement and a parents' association; (iii) a realistic level of charges needs to be set and adjusted to meet rising costs; and (iv) the day nursery could provide a basis for co-operation between local authority social services departments and area health authorities.

SPECIAL CLASSES OF STAFF

ADMINISTRATIVE AND CLERICAL STAFF

See also Abstract No. 1701

1710. REED, D. H. and HARMAN, J. R. **Selecting a chief executive officer.** *Trustee*, Chicago, 1975, Aug., vol. 28, no. 8, pp. 14-16, 18.

The selection of a chief executive officer is one of the decisions made by a board of hospital trustees that will have the greatest impact upon the hospital. Trustees cannot provide the skill and knowledge for the daily administration of a hospital and consequently have to rely upon the leadership of a chief executive officer. However, there are many problems involved in recruiting that increase the onus of responsibility for the board. Ideally the successor will have been trained by the retiring chief executive officer, but the qualities of the 'number two' man may not be those needed for a 'number one' post, as the two positions are very different. If there is no successor the board will then have to define the problems faced by the hospital and should issue a well-defined job description. Three elements are defined for the selection of a chief executive officer and for him to carry out his role effectively: (i) the recruitment and selection process must be carried out in a professional manner; (ii) the challenge must be present and the rewards appropriate; and (iii) the board must feel it has done its job well and can support the selected officer.

MEDICAL STAFF

See also Abstract Nos. 1701, 1801

1711. KNAFL, K. and BURKETT, G. **Professional socialization in a surgical specialty: acquiring medical judgment.** *Social Science & Medicine*, Oxford, 1975, July, vol. 9, no. 7, pp. 397-404.

Medical judgment, requiring broad understanding and experience in both the clinical and theoretical aspects of medicine, is developed through a continuous process of decision-making and evaluation in regard to the treatment of specific cases. Judgment is the ability to reach successful decisions in the face of ambiguous circumstances. This paper reports an investigation carried out to determine the ways in which judgment is acquired by junior orthopaedic residents during a four-year training programme. From the beginning of this training, residents encounter situations in which they must begin to learn to integrate clinical experience, the specialist literature and the particular needs of the patient in order to make a decision. Decisions may be made through a group process involving junior doctors and consultants, or according to personal 'treatment philosophies'. Evaluation of the consequences of a particular treatment is also an important element of judgment.

NURSING STAFF

See also Abstract Nos. 1701, 1762, 1763, 1770, 1772, 1808, 1811, 1817, 1822, 1823

1712. ANDERSON, J. and others. **The expanded role of the nurse: independent practitioner or physician's assistant?** *Canadian Nurse*, Ottawa, 1975, Sept., vol. 71, no. 9, pp. 34-35.

As a result of the project at the psychiatric in-patient unit at the Health Sciences Centre at the University of British Columbia [see Abstract 1825], two questions have been raised concerning the role of the nurse who becomes a primary therapist. Has she enhanced her status as an independent nurse practioner, or has she merely become the physician's assistant? In the light of developments resulting in the blurring of the nursing role with that of medicine, and the acceptance of the concepts of anticipation and accountability, the role of the nurse is no longer to be viewed as that of subordinate to the doctor but that of a colleague. Further nursing role models, both as teachers and clinical workers, will have to be developed in order that greater responsibility may be assumed by nurses in clinical practice.

1713. BERGESON, P. and MELVIN, N. **Granting hospital privileges to nurse practitioners.** *Hospitals*, Chicago, 1975, Aug. 16, vol. 49, no. 16, pp. 99-101.

As increasing numbers of nurses practice in expanded roles, pressure is exerted on hospitals to grant practice privileges. The department of paediatrics at the 750-bed Good Samaritan Hospital, Phoenix, Ariz., participates in a paediatric nurse associate programme which trains 20 graduates a year. It was interested in providing an example for other hospitals in the area for the granting of hospital privileges. The hospital worked with the Arizona State Board of Nursing to produce regulations which cover paediatric nurse associates, nurse midwives and family nurse practitioners. The privileges

which may now be granted to paediatric nurse associates are listed and the rules and regulations for the granting of these privileges are reproduced.

1714. MULLANEY, J. W., FOX, R. A. and LISTON, M. F. **Clinical nurse specialist and social worker—clarifying the roles.** *Nursing Outlook*, New York, 1974, Nov., vol. 22, no. 11, pp. 712-718.

The roles of the clinical nurse specialist and the social worker are examined. The two roles are seen as similar, both professions draw from each other; the clinical nurse specialist has a master's degree in a nursing specialty and acts as a teacher, therapist, consultant, researcher and/or administrator. The social worker has a master's degree in social work and acts as an administrator, therapist, teacher, researcher and/or consultant in health care. The educational requirements and training of both professions are examined, together with their responsibilities, views on collaboration and areas of contact. The implications of the study lie in the education and practice of the two professions, for by examining the training procedures, and having greater collaboration between the professions, the confusion regarding roles may be avoided. There are 23 references to the literature.

1715. LEVINE, H. D. and PHILLIP, P. J. **Factors affecting staffing levels and patterns of nursing personnel.** (DHEW Publication No. (HRA) 75-6) Washington, U.S. Government Printing Office, 1975, x, 110pp. $1.45.

Data from existing sources has been used to analyse the employment of nursing staff in community hospitals from the perspectives of demand, need and potential of hospital care for the community. These analyses provide new perspectives for looking at the maldistribution of nursing staff. Regression models were developed for each of six staff categories based on the consideration of 21 independent variables.

1716. GASPARDY, B. **Using permanent part-time nursing personnel effectively.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Aug., vol. 17, no. 8, pp. 50-52.

Relief nurses are used exclusively at Queensway General Hospital, Etobicoke, Toronto, to overcome the shortage of full-time staff. The hospital provides for 330 adult patients and 45 babies and 170 relief nurses are used. The relief nurses formed three groups: A, those who could work at any time they were called; B, those who worked during the week or in the summer; and C, those who worked only occasionally. Seniority became the deciding factor for bookings and call-in. The relief nurses were allowed to choose their category or categories—area of service, tour of duty and days available for work. Category A were available 11 months of the year and would be booked two weeks in advance for one to three days a week. Category B who were not required to work holidays or weekends were resented by A and were eventually dropped. Category C were available for call-in at very short notice (the day before or the day itself). Sample cards reproduced in the paper show how the hospital deals with problems of payment and scheduling. The associate director of nursing is responsible for the overall operation of the relief nurse service but head nurses are responsible for hiring, scheduling work performance, etc., of Category A nurses on their units. A scheduling clerk handles the day to day bookings and subsequent call-ins. Relief nurses are able

to become team leaders and charge nurses and they take part in educational activities. They come in for emergencies, holidays and maternity leaves which enables the needs of full-time staff to be met.

1717. HOOPER, J. E. **Training for mature entrants: progress report on an experimental scheme.** *Nursing Times*, London, 1975, Oct. 9, vol. 71, no. 41, occasional papers pp. 101-104.

An evaluation of an experimental State registered nurse (SRN) course held at the Portsmouth School of Nursing is made. The mature woman's course, intended for women who are unable to take the full-time SRN courses, began in February 1970, and was evaluated in 1974. The examination pass rate compares favourably with that of full-time students, and in spite of family pressures less time was taken off by the mature students than those on the full-time course. The highest intake for age groups lies within the 33-39 and 40-44 years group, and the employment potential of the candidates is favourably viewed. The withdrawal rate from the course in January 1974 was 10 per cent. The scheme has been approved by the General Nursing Council for England and Wales.

1718. DAVIDSON, M. H. and others. **A short-term intensive training program for pediatric nurse practitioners.** *Journal of Pediatrics*, St. Louis, 1975, Aug., vol. 87, no. 2, pp. 315-320.

This paper describes a scheme established in Los Angeles, Calif., to give intensive training to paediatric nurse practitioners (PNP). The course involved an intensive six-week training period, with lectures by a paediatrician, a PNP and invited specialists on all aspects of paediatric care including the PNP role and its legal status. One-third of the course was spent in paediatric clinics. Thirty nurses were selected for the course; on average they had about five years' experience in paediatrics. Following the six-week intensive course, students had a six-month preceptorship period, during which they spent all their time in paediatric work in the agency from which they had come. This aspect allowed students to retain employment in their hospital or other service whilst on the six-week course. The six-month preceptorship involved monthly seminars and work with an instructor as well as a large amount of time in PNP clinics. Three written and two practical examinations evaluated students on the course. Students showed a significant improvement in performance after the six-week intensive programme, and a slight improvement on this after the preceptorship period. This programme has enabled PNPs to develop greater job satisfaction and improved use of their skills and work time. There are 19 references to the literature.

1719. TOWELL, D. **Nursing under scrutiny.** *New Psychiatry*, London, 1975, Sept. 25, vol. 2, no. 20, pp. 10-11.

A study of three wards in a progressive psychiatric hospital was carried out, analysing the importance of the patient-nurse relationship and the role of the psychiatric nurse. In spite of the recommendations of the Briggs Committee that there should be the same basic training for all nurses, with later specialization, it was found that attitudes differed widely between the three wards and in each there were limitations to the role of 'personal relationship' as emphasized in textbooks. In the first ward (admissions), the

nurses played a key linking role, acting as agents for the medical staff, exercising social control in maintaining order in the ward, and interpreting situations from a mathematical model. The second ward was developed as a therapeutic community, with considerable emphasis upon social responsibility. Typical of this is the daily 'community meeting' attended by all staff and patients to discuss social relationships and ward policy. The third ward (geriatric) concentrated on the administration of the basic necessities of existence. Physical dependence shaped the work pattern; there was very little attention to treatment, except in relation to physical diseases. In conclusion, the psychiatric nurse was seen to have a variety of roles which varied radically according to the setting in which they were performed, and which, in consequence, gave weight to the uncertainties regarding the appropriateness of medical conceptions of 'mental illness' when confronted with the range of human problems found in psychiatric hospitals.

OTHER PROFESSIONAL AND TECHNICAL STAFF

See Abstract Nos. 1772, 1775, 1790, 1797

ORGANIZATION AND ADMINISTRATION

See also Abstract No. 1786

1720. DICKINSON, C. W. and HODGETTS, I. R. **Participation in practice.** *Health and Social Service Journal*, London, 1975, Oct. 18, vol. 85, no. 4461, pp. 2338-2339.

The essence of participative management is to recognize the needs of people at work, and through involvement, to give a level of job satisfaction. The introduction of participative management is a process of inducing a climate where change of attitude can take place. Two pilot schemes in participative management have been developed in: (i) a 1,600-bed district general hospital with a history of industrial relations problems and developed from a local authority hospital to a major teaching hospital; and (ii) a 300-bed acute ex-voluntary teaching hospital with centuries of tradition. It was found that participative groups within the two hospitals were prepared to look further at aspects of their work and through participation were able to consider the whole of the organization and to take part in its development. In conclusion it is suggested that the participative management style should be applied to all grades of staff in any situation.

1721. BROWN, M. and MONEY, W. H. **Implications of multihospital management for Catholic hospitals.** *Hospital Progress*, St. Louis, 1975, Sept., vol. 56, no. 9, pp. 89-92.

It is only recently that the impact of multiple hospital management expertise has been seen as a significant factor in health care. Various factors affecting the operational success of multiple hospital schemes are analysed: (i) accessibility of services; (ii) cost of systems; (iii) quality of service; (iv) accountability of the hospital; (v) flexibility of the system; (vi) innovative ability of the system; and (vii) over-all comprehensiveness of care. The implications of their development are discussed with reference to the Roman Catholic health care system in America.

1722. BROWN, M. and MONEY, W. H. **The promise of multihospital management.** *Hospital Progress*, St. Louis, 1975, Aug., vol. 56, no. 8, pp. 36-42.

Many small and independent hospitals in the United States have developed co-operative relationships in the interests of efficiency and cost effectiveness. Multi-unit management does away with conflict and competition and eliminates the need for highly expensive equipment in every hospital. Properly used large-scale organization has many advantages both for profit and non-profit hospitals. Eight ways are described in which the development of the health delivery industry will be affected by the management of health care organizations by multiple hospital systems. These demonstrate clearly the feasibility and already strong development of the system, its ability to evolve under a variety of environmental pressures, its applicability to the current market for medical care and its potential future role. The types of hospital likely to be incorporated into a multiple system include those: with chronically low occupancy; less than 200 beds; in rural or inner city areas; in areas where it is difficult to attract skilled staff; and older hospitals. Contract management will be an important force in the future. This differs in several ways from previous methods of developing multiple systems and appeals to both voluntary non-profit and investor-owned hospitals.

ECONOMICS OF HOSPITAL MANAGEMENT

See Abstract Nos. 1707, 1786, 1793

BED OCCUPANCY, ECONOMIC USE OF BEDS

1723. DAVIES, T. F. **Programmed investigation bed.** *British Medical Journal*, London, 1975, Oct. 18, vol. iv, no. 5989, pp. 149-150.

A single programmed investigation bed has become a useful addition to a busy male medical ward of the Royal Victoria Infirmary, Newcastle upon Tyne, where bed occupancy is greater than 95 per cent and there is no method of increasing the number of beds available. Patients had to wait only a short time before being admitted and their stay was shorter than it would have been before the bed was introduced. The efficiency of ward procedures improved as a result. The use of the bed requires careful planning and full co-operation from medical and nursing staff.

1724. HOLBROOK, F. K. **Computerization aids utilization review.** *Hospitals*, Chicago, 1975, Sept. 1, vol. 49, no. 17, pp. 53-55.

Montana Deaconess Hospital, Great Falls, has computerized utilization data in a way that may be a starting point for establishing more effective methods for handling federal review requirements. A utilization review form (reproduced) is included as part of the set of admission documents. The patient's diagnosis data are entered into the computer via a remote terminal. The computer then selects the PAS regional 50th percentile length of stay for that diagnosis and age category and retains it for a daily follow-up file for timely notification to the attending physician for extended stay review. The review procedure followed is described. The data are also used to prepare for each physician a performance profile for length of stay by diagnosis.

DATA PROCESSING

See also Abstract Nos. 1724, 1728-1730, 1734, 1748, 1773, 1776, 1777, 1788, 1789, 1795, 1796

1725. ANDERSON, J. and FORSYTHE, J. M., editors. **Medinfo 74: proceedings of the First World Conference on Medical Informatics, Stockholm, August 5-10, 1974.** Amsterdam & Oxford, North-Holland and New York, American Elsevier, 1975, xxxiii, xiv, 1192pp. $50.00.

This conference was designed to be both specific and educational and was intended not only for specialists but for all those involved in health care. Nearly 200 papers were presented on 18 themes, including: (i) policies for introducing computers; (ii) management tactics for the introduction of computers; (iii) methodology of evaluation of health information systems; (iv) confidentiality and security; (v) education of health staff in computing; (vi) impact of medical computing on medical practice and people; (vii) methodology of health data base development; (viii) experience with computer-based medical information systems; (ix) improving health care delivery in the community; (x) improving patient administration in hospitals; (xi) intensive care; (xii) drug data handling; (xiii) medical linguistics; and (xiv) clinical laboratory.

1726. REEKIE, D., ROBERTSON, J. W. K. and LENNOX, B. **The use of an independent network of semi-intelligent terminals for input to a hospital computer system.** *Health Bulletin*, Edinburgh, 1975, Sept., vol. 33, no. 5, pp. 214-219.

A trial is described of an independent network of terminals designed to collect data for a computer at Glasgow Western Infirmary. The network consists of 'semi-intelligent' Olivetti TC380 terminals, which type out forms and at the same time format and vet the data concerned. The data is transmitted by wire to a small central Vector computer which combines the data from all terminals on a magnetic tape, which is transferred at intervals to the main computer. The system has great resistance to breakdown at all levels. The advantages of a network of this type over standard batch-processing and on-line systems are discussed. A photograph of the terminal and an example of the admission form typed out by it are included.

1727. SCHMITZ, H. H. **There's more than one consideration for the accounting treatment of purchased software.** *Hospital Financial Management*, Chicago, 1975, Aug., vol. 29, no. 8, pp. 21-24.

The United States Internal Revenue Service (IRS) has stated that the proper accounting treatment for the purchase of computer software is that of amortization over a period of years covering its useful life. It is argued that the IRS is not an agency which establishes accounting standards but one that specifies what is acceptable in computing tax liability in profit-making organizations. IRS rules are not appropriate for non-profit hospitals and further, differ from the Medicare regulations. Hospitals are said to benefit most if the software costs are written off in the accounting period in which they occur. This is a reasonable practice as it is difficult to determine the useful life of software or its value, especially as software programs are often modified over a period of time.

ORGANIZATION AND METHODS, WORK STUDY

See Abstract No. 1788

MEDICAL RECORDS

See also Abstract Nos. 1726, 1796

1728. FENLON, S. **The on-line patient index at Addenbrooke's Hospital, Cambridge.** *Database Journal*, London, 1975, vol. 6, no. 7, pp. 22-26.

This paper describes the computerized medical records system adopted at Addenbrooke's Hospital, which is equipped with a Rank Xerox Sigma 6 computer with 320K bytes memory and 150 Megabytes exchangeable disc store. The system includes a network of Visual Display (VDU) terminals allowing transaction processing, and the project uses the Xerox Extended Database Management System (EDMS). Replacing an earlier manual system the master index file holds the name, sex, date of birth, and hospital serial number of 450,000 patients who have attended the hospital. Given the basic details of a patient's name, sex and date of birth, the on-line program retrieves and displays the patient's record, and provides a more comprehensive search and greater accuracy and speed than the manual system. The database is described in detail and reasons are given for the decision to include in the system separate common surname records and Soundex records using the Russell-Soundex rules to eliminate mis-spellings. Further sections describe the conversion of the data and the loading of the database.

1729. ROGER, F. H., JOOS, M. and HAXHE, J. J. Importance des résumés cliniques interhospitaliers automatisés dans les décisions relatives à la santé. **[The importance of automated interhospital clinical summaries for health related decisions.]** *Louvain Médical*, Louvain, 1975, vol. 94, no. 1, pp. 21-33.

About 25,000 medical record discharge summaries have been computerized in batch processing since 1970 at the University of Louvain. Six specialized records, 240 characters each, can be added to every summary for selected studies, in a very flexible and simple structure. A minimum basic data set selected from records in a co-ordinated interhospital system seems essential for improving health care quality and for minimizing its cost. The authors describe an automated system with several examples of applications in the short and long run. The concepts of unit medical record and problem-oriented medical record are included in the system. [This abstract has been prepared from an English summary of the paper.]

1730. NOVÁK, J. Betegdokumentáció és számítógépek a kórházban. **[Medical records and computers in the hospital.]** *Egészségügyi Gazdasági Szemle*, Budapest, 1975, June, vol. 13, no. 2, pp. 175-180; summaries in Russian, English and German, pp. 180-181.

The medical records systems of hospitals and polyclinics and the use of computers in hospitals in the German Democratic Republic are described. The up-to-date patient documents enable physicians to establish their completeness and assist them in making decisions. A uniform medical record envelope is used in in-patient facilities; a coded

copy can be detached from it for processing. In polyclinics medical records are stored centrally in a suspension system. The integration of hospital and polyclinic medical record systems is under consideration. Computers are necessary in hospitals, but only small machines can be exploited economically; it is more reasonable to obtain the output of high capacity computers by contract services. A 4,000-bed facility visited in Berlin had a staff of 14 in its computer department, working under the management of two physicians. [This abstract has been prepared from an English summary of the paper.]

HOSPITAL STATISTICS

See Abstract Nos. 1815

LEGAL ASPECTS OF HOSPITAL ADMINISTRATION

1731. VAN SPLINTER, M. D. **Is protection only a costly frill?** *Hospitals*, Chicago, 1975, Sept. 1, vol. 49, no. 17, pp. 99-101.

This paper describes the wide variety of duties carried out by the security department of Mount Sinai Hospital, Hartford, Conn. These illustrate why a security service is needed and how it can be provided.

FINANCE AND ACCOUNTING

FINANCE

1732. SWEENEY, D. H. **Flexible budgeting: the great escape.** *Hospital Financial Management*, Chicago, 1975, vol. 29, no. 8, pp. 36-38.

This paper argues that flexible budgeting can be useful in improving hospital budgeting techniques and for controlling costs when unexpected changes occur in hospital use. There is no definition of flexible budgeting but there is a description of how costs should be treated as fixed, variable and semi-variable, and how future variations in costs can be estimated. Effective use of the flexible budget approach depends on careful monitoring of costs, standards and capabilities of each of the hospital's departments and analysis of results achieved.

1733. MULLER, C., WORTHINGTON, P. N. and ALLEN, G. **Capital expenditures and the availability of funds.** *International Journal of Health Services*, New York, 1975, vol. 5, no. 1, pp. 143-157.

Data on capital expenditure and the availability of funds have been assembled from the annual financial and service records of 42 short-stay voluntary hospitals in New York City over two decades. It was used to analyse the behaviour of annual capital expenditure on building and equipment. Desired expenditures on capital as a factor of production are viewed as being the result of changes in anticipated output and of substitution of capital for labour. Four factors—output, substitution, the flow of

non-operating revenue, and a distributed lag—explained about 95 per cent of the sample variance of capital expenditure. Allowing for available funds reduced the average time required for 95 per cent completion of a capital adjustment from seven to three years. Responsiveness of hospitals to these economic variables suggests that socially desired investment can be attained by: (i) 'monetizing' needs of groups now underserved; (ii) improving availability of funds if used for acceptable public purposes; and (iii) including consumers in determining institutional and regional priorities.

HOSPITAL ACCOUNTING

See Abstract No. 1727

SUPPLIES AND STORES

1734. ROKKONES, T. Et EDB-system for styring av rekvisita-forbruk og lagerhold helsesektoren. III. Et forsøk på analyse av laboratorierekvisita-forbruk. **[An EDP system for controlling the use and storage of supplies in the health service. III. A trial based on the analysis of laboratory equipment usage.]** *Sykehuset*, Oslo, 1975, vol. 38, no. 6, pp. 309-320.

Earlier parts of this paper [see *Hospital Abstracts*, Vol. 15, Abstract 1445] described the computer system at Ålesund County Hospital. This part describes the way in which financial accounts and itemized accounts can be used together to analyse the consumption of laboratory equipment. A central clinical laboratory operates with 22 boxes containing apparatus for various functions, and a 23rd for equipment with no fixed function: the various items are codified by 600 numbers. The paper is illustrated with eight computer printouts showing total expenditure in 1974 and cost of immunological analyses, blood analyses, photometry, auto-analyser analyses, specimen-taking, control of analyses, and re-usable pipettes, plus numbers of items removed from the various spaces in the relevant box. One, for example, reveals that 41 cuvettes had to be purchased in 1974—an alarming sign, leading to further enquiry. Collection of similar information for several laboratories over a period of years will lay the foundations for improved and more economical operation.

PURCHASING

See Abstract No. 1727

CATERING, DIETETICS, KITCHENS

HOSPITAL CATERING

1735. JORDÖ, B. Hur kan livsmedelsindustrin och sjukhusen samarbeta för en bättre och säkrare produktutveckling? **[How can the food production industry and the hospitals co-operate in developing a better and safer product?]** *Sjukhuset*, Göteborg, 1975, vol. 52, no. 9, pp. 455-456, 459-460.

Of the 1,000 million meals a year served by the Swedish catering trade, 152 million

go to hospitals; 67 hospitals (five per cent of the total) purchase half the meals supplied. Yet the hospital system has not made the demands on the food industry which would improve their standards. Spri has published a system of nutritional standards, PRANDIUM, aimed at improving the economy of hospital diets. The range of deep frozen foods on offer today is so wide that institutional food need never be monotonous. The cost of providing meals is rising, so the hospital should aim at providing as normal a diet as possible. The catering trade must increase its range of products applicable to all patients, whatever their special diet. The tools used in product development are: (i) market data; (ii) dietary standards; and (iii) reviews of special diets required. New ideas are hard to find—the dialogue between the hospitals and the food industry needs to increase in intensity, to their mutual benefit.

1736. SANDGREN, U. Planering—ett nödvändigt instrument byggt på riktiga förutsättningar. **[Planning—a necessary instrument if based on the correct assumptions.]** *Sjukhuset*, Göteborg, 1975, vol. 52, no. 9, pp. 463-464.

The most significant development in hospital catering in recent decades has been the introduction of centralized cooking and serving. The aim is to serve the correct meal to every patient, but centralization of services does not necessarily guarantee this. A development of the central kitchen system has been its use to supply other institutions within a radius of several miles, so as to exploit the benefits of large-scale operations. In one county in Sweden, the annual costs of providing meals comprised 50 per cent wages, 37 per cent raw materials, two per cent transport, one per cent preparatory work and 10 per cent accommodation. Since transport costs so little, it is obviously of financial benefit to cut staff and transport meals over long distances, provided the meal is served within a maximum of two hours of preparation. The aim of all planning is to improve the service while reducing the cost. The cost per daily portion has risen from s.kr. 19.56 in 1973 to s.kr. 22.72 in 1975, and will be s.kr. 31 in 1982. These figures are analysed in detail in an illustration. Hospital catering differs very little from ordinary catering, and the components of special diets are usually available in the normal diet. The hospital should use more convenience foods, and should not allow traditionalist thinking to inhibit increased efficiency and economy. Spri's PRANDIUM catering plan offers a modern solution to the problem of hospital catering.

1737. WESSEX REGIONAL HEALTH AUTHORITY. **Better food for patients.** London, King Edward's Hospital Fund for London, 1975, 11, 47, [3], 16, 12, 12pp. £6.30.

This publication consists of six booklets: (i) a report on an investigation of ways of improving food service to patients carried out in hospitals of the Wessex Regional Health Authority; (ii) a set of audits which have been produced to measure the quality of patients' meals and to pinpoint operational defects; (iii) an outline for a training programme to teach ward staff the essential skills needed to provide high quality and efficient meals service to patients; and (iv) three booklets for staff on new menus, cooking and ward service.

1738. PALMER, J. **Evaluating frozen food service in a hospital.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Aug., vol. 17, no. 8, pp. 53-55.

A research project at the 226-bed Penticton (B.C.) Regional Hospital has evaluated

a new system of frozen and chilled food production with chilled entrée assembly and reconstitution of the entrée by convection oven at ward level. The points evaluated were costs of labour, utilities, raw food, equipment and plant and quality of food and food service and the Penticton Scheme was compared with a conventional system in a similar hospital. Food production, scheduled over 20 working days of a 28-day production cycle, maintains a frozen food inventory level to supply two cycles of a 14-day selective menu. Nearly all menu items except vegetables and some breakfast dishes are prepared for frozen storage. Entrées are plated and held under refrigeration centrally until they go to the ward kitchen for heating, about 20 minutes before tray delivery. Cold dishes and other tray components are assembled by tray-line operation, with trays held under refrigeration in a tray transport vehicle. This vehicle contains a heated section for soup or cooked cereal which is heated in bulk and portioned whilst hot. Beverages are freshly made at the ward kitchen. Difficulties have been encountered in managing the frozen inventory and in thawing the entrées. Research findings have shown that overall labour costs are higher with the Penticton scheme though those of food production are less. Food acceptance was greater at the conventional hospital except as regards food temperatures which were more acceptable at Penticton.

DIETETICS IN THE HOSPITAL

See Abstract No. 1764

KITCHENS

1739. LINDBERG, G. V. Innovationer och förbättringar av arbetsmiljön i storkök. **[Innovations and improvements to the working environment in the large kitchen.]** *Sjukhuset*, Göteborg, 1975, vol. 52, no. 9, pp. 448-449, 451, 453.

The hospital kitchen has seen the introduction of much equipment which has simplified or eliminated physical labour, improving the ergonometric and working environment. Transport and storage are aided by fork-lift trucks and pallettes, disposing of the need for shelving. Industrially cleaned potatoes and other vegetables are kept in contact with moving water in the Atir Rinser, with hydraulic front tipping. Machines which need developing are: one for cutting off the stalks of cabbages and cutting the heads in half; and a purée presser. Not enough hospitals have yet purchased the Stephan Universal Mixer, which can deal with deep frozen foods, large lumps of meat, etc., in seconds. Modern large-scale tunnel ovens now require less manual control than even five years ago. Centralized serving of meals onto trays which can weigh five kg. when full has meant that staff are handling burdens of up to three tons an hour, a development which has led to the design of automatic loaders and unloaders for food trolleys. LIC have produced a trolley which fits the automatic washers on the market. Euroclean have developed high pressure apparatus for cleaning floors, walls, fume extractors and kitchen utensils. New kitchens should be planned with built-in high pressure aggregates. The paper is illustrated with nine photographs of the apparatus discussed.

HOSPITAL DOMESTIC MANAGEMENT

DOMESTIC WORK

1740. BERGLUND, M.-B. Städorganisationen vid Östersunds sjukhus. **[Cleaning organization in Östersund Hospital.]** *Sjukhuset*, Göteborg, 1975, vol. 52, no. 9, pp. 483-484.

The 1,200-bed Östersund Hospital, which comprises the infirmary, the Frösok Clinics with nursing college, and Solliden, admits about 21,000 patients a year and has employed centralized cleaning services since 1965. The cleaning department has an establishment of 116 posts, which are filled by about 165 full- and part-time staff under the control of a director and three supervisors. The area to be cleaned amounts to 121,500 sq.m. Working hours are from 0700 to 1600, five days a week; a skeleton staff (one cleaner to two wards) works on Saturdays, and Sunday tasks are carried out by the ward staff. Each ward has its own cleaning room with all the various materials, and its own mops kept in a special refrigerator, 2,000 mops being cleaned a day. The cleaning methods used are primarily damp mopping with cotton mops, daily washing of certain areas, and vacuum cleaning of carpets. Where the labour situation permits, a one-month, 40-lesson training course is given; the county also offers two one-week courses a year.

HYGIENE IN THE HOSPITAL

HOSPITAL INFECTIONS

1741. JEPSEN, O. B. and KORNER, B. **Bacteremia in a general hospital: a prospective study of 102 consecutive cases.** *Scandinavian Journal of Infectious Diseases*, Stockholm, 1975, vol. 7, no. 3, pp. 179-184.

A prospective clinical-bacteriological study of 102 consecutive cases of confirmed bacteraemia at a Copenhagen City general hospital was carried out during five months of 1973, with special concern given to focus of infection and acquisition of micro-organisms. Hospital beds are to a large extent occupied by infection-prone elderly patients and in these patients antibiotics have apparently failed to reduce the over-all mortality from bacteraemia. It is concluded that attempts to reduce outbreaks should be accompanied by increased surveillance of ecological factors and hospital procedures.

1742. LITTON, A. **Gram-negative septicaemia in surgical practice.** *British Journal of Surgery*, Bristol, 1975, Oct., vol. 62, no. 10, pp. 773-776.

The incidence of septicaemia in a surgical unit was observed over a seven-year period. Gram-negative infections occurred three times more frequently than bacteraemia caused by Gram-positive bacteria. The clinical features of septicaemia, the portals of entry of the infection and the bacteria isolated from blood cultures are described.

1743. RICHARDS, N. M. and LEVITSKY, S. **Outbreak of *Serratia marcescens* infections in a cardiothoracic surgical intensive care unit.** *Annals of Thoracic Surgery*, Boston, Mass., 1975, May, vol. 19, no. 5, pp. 505-513.

An outbreak of infections with pigmented *Serratia marcescens* involving three patients in a cardiothoracic surgical intensive care unit is reported. A respirator is thought to have been the source of pneumonia in two patients, and fomite spread from one of these is considered responsible for the induction of fatal endocarditis in the third patient. This outbreak demonstrates the rapid dissemination of a bacterial strain within the unit, several methods of dissemination, the wide variation in apparent virulence of the organism, the alterations of antibacterial host defence which made bacterial disease possible and which determined the site of infection, and the difficulties of adequate therapy. The third patient is the seventh reported with serratia infection of a prosthetic heart valve.

1744. FRANCIS, D. P. and others. **Nosocomial and maternally acquired herpesvirus hominis infections: a report of four fatal cases in neonates.** *American Journal of Diseases of Children*, Chicago, 1975, Aug., vol. 129, no. 8, pp. 889-893.

This paper discusses four fatal cases of herpesvirus hominis type 2 which occurred in September and October 1971 at the Perinatal Intensive Care Unit of the University of Oregon Medical School, Portland. Three of the infants developed symptoms in the first week of life and were probably infected in utero or at delivery. Improved techniques of smear testing, viral culture and caesarean section will help to diagnose such infections and prevent the infant from contracting the infection at birth. Investigation of prenatal care and deliveries in these cases failed to establish any cross contact between mothers or infants before arrival at the Perinatal Intensive Care Unit. The fourth patient was transferred to the unit at the age of two weeks, before admission of the other cases, and showed no signs of herpesvirus infection until six weeks. An epidemiological investigation was made to establish the cause of infection in the patient. Tests on nursing and other staff in the unit established the prevalence of herpesvirus type 1 and type 2 infections, and it is possible that such an infection could have been passed to the infant. The most probable source of infection however was the first patient, whose infection was probably spread by a staff member. Nursing hygiene measures should consequently never be compromised if such infections are to be prevented.

SOURCES OF INFECTION

1745. MCBRIDGE, M. E. and others. **Microbial flora of nurses' hands. III. The relationship between staphylococcal skin populations and persistence of carriage.** *International Journal of Dermatology*, Philadelphia, 1975, March, vol. 14, no. 2, pp. 129-135.

The hands of 50 nurses and 50 controls were tested for coagulase-positive staphylococcus; 28 per cent of both groups were carriers. The mean staphylococcal count on the palm of the hand was 13.7 per 16 sq.cm. in the nurses and 442.7 per 16 sq.cm. in the controls. The number of persistent carriers was the same for each group, but 25 per cent of all cultures from nurses were positive for *Staphylococcus aureus* as

compared with 14.2 per cent of the cultures from the control group. It was concluded that there was no direct correlation between high staphylococcal counts and persistence of carriage. The skin as a site of carriage of *St. aureus* was found to be of greater importance in nurses than in the control subjects.

1746. EDLICH, R. F. and others. **Surgical sutures and infection: a biomaterial evaluation.** *Journal of Biomedical Materials Research*, New York, 1974, vol. 8, no. 3, pp. 115-126.

A standardized readily reproducible experimental model has been developed to assess the relative importance of the chemical and physical configuration of sutures as determinants of early infection in contaminated wounds. The chemical structure of the suture appeared to be the most important factor in the development of surgical infection. The incidence of infection in contaminated tissues containing either polypropylene sutures or nylon sutures was lower than that of tissues subjected to any other non-absorbable suture. Among the absorbable sutures, polyglycolic acid (PGA) sutures evoked the least inflammatory response. The infection rate of contaminated tissues containing the PGA sutures was not significantly different from the incidence of infection of tissues subjected to the least reactive non-absorbable sutures. The physical configuration of the suture played a relatively unimportant role in the development of early infection. The presence of even the least reactive suture in contaminated subdermal tissue potentiated the development of infection.

PREVENTION AND CONTROL

1747. AMERICAN PUBLIC HEALTH ASSOCIATION. LABORATORY SECTION. COMMITTEE ON MICROBIAL CONTAMINATION OF SURFACES. **Environmental microbiologic sampling in the hospital.** *Health Laboratory Science*, Washington, D.C., 1975, July, vol. 12, no. 3, pp. 234-235.

The Committee has studied the problem of the role and value of environmental microbiological sampling. The Committee feels that such sampling performed in a routine fashion in the hospital environment with no specific goals in mind is unnecessary and economically unjustifiable. Environmental microbiological sampling should be conducted with the idea of identifying actual and potential contamination problems that have been incriminated epidemiologically. Periodic environmental microbiological sampling can point out potential contamination areas that may in turn be associated with risk of disease acquisition; but in this context, specific goals or achievement standards must be established before any benefit can be realized. Occasional environmental sampling for educational purposes is worthwhile, but these types of programmes should not be overdone.

1748. FLEURETTE, J. and BRUN, Y. Une expérience de contrôle des infections acquises à l'hôpital: méthodes traditionnelles utilisées, possibilités offertes par l'informatique. **[Experience in the control of hospital infection: traditional methods used, possibilities offered by the computer.]** *Gestions Hospitalières*, Mantes, 1975, April, no. 145, pp. 301-310.

Lyon Heart Hospital has had an infection control committee since 1971. Traditional methods of control resulted in the reduction of the infection rate from 20.6 per cent in 1963 to 7.5 per cent in 1971. The limitations of traditional methods for calculating monthly infection rates led in 1973 to the introduction of a computerized subsystem for epidemiological surveillance. This paper describes the procedures of collecting information, the relevant documents, periodical computer printouts and the thesaurus of the samples and bacteriological species.

1749. MESHELANY, C. **Infection control manual: a guide for hospitals, clinics, nursing homes, and other health agencies.** Oradell, N.J., Medical Economics Company, 1975, looseleaf, $69.50

This manual sets forth the best of methods and practices in infection control in a logical manner. The looseleaf format has been used so that updated and local material can be added.

1750. MULHOLLAND, S. G. and others. **Experience with detailed surveillance of nosocomial infection.** *Surgery, Gynecology and Obstetrics*, Chicago, 1975, June, vol. 140, no. 6, pp. 941-945.

Hospital infection rates at the 332-bed Graduate Hospital of the University of Pennsylvania, Philadelphia, have been studied with the aim of providing patients, hospital staff and the community with greater protection from infection. A surveillance scheme was first set up in 1970, and in 1972 computerization of the information and reporting systems was introduced. The efficiency of this scheme has been favourably compared with previous methods of infection surveillance. The information obtained during the first year of computerized surveillance is summarized. As a result of the scheme: (i) there is a greater awareness of the need for surveillance of hospital infection; (ii) the statistics have led to a greater interest in preventing infection; (iii) doctors are better equipped to deal with the problem; and (iv) the patients' general welfare is protected to a greater degree through intensive surveillance.

HYGIENE IN THE OPERATING THEATRE

See also Abstract No. 1771

1751. NEUGART, H. **Air conditions in an operating theatre with laminar flow in the wound area.** *Sulzer Technical Review*, London, 1975, vol. 57, no. 1, pp. 75-79.

To improve the aseptic conditions in an operating theatre, the wound area was air-conditioned on the vertical, low turbulence laminar flow principle. Here the air is not led through fixed side walls, as in the operating enclosure for example. To obtain an idea of the effects of disturbances in the flow pattern with this system (from instrument and operating tables, operating lamp, patient and surgical team) the flow, air velocities and attenuation functions (degree of flushing in the wound area) were measured under various conditions. The local flushing and air purities are about five times better than with conventionally air-conditioned operating theatres with 20 air changes per hour. The position of the operating lamp is of special importance.

AIR HYGIENE

See Abstract No. 1751

DISPOSAL OF WASTE

1752. McDOWELL, J. **Refuse disposal policy in the NHS.** *Hospital Engineering*, Stevenage, 1975, Oct., vol. 29, pp. 3-6.

The responsibilities for domestic waste, after the recent local government reform in Britain, are broadly divided. The district councils are responsible for refuse collection and the county councils are responsible for waste disposal. Industrial wastes are usually disposed of by private contractors. The problem in the National Health Service (NHS) is normally solved by waste being taken in plastic or paper sacks and burned. The remaining sterile products, representing 10 per cent by volume and 30 to 40 per cent by weight, may be handled as domestic refuse by the local authority collection and disposal services. However, in view of the cost, alternative methods for waste disposal are examined, from the aspects of: (i) design considerations; (ii) incineration costs; (iii) cost of waste disposal by controlled tipping; and (iv) costs of maceration and wet-disposal systems. It is recommended that the NHS should pursue policies of segregation and controlled tipping and should not proceed with: (i) erecting further incinerators to meet growth in waste loads; (ii) replacing any existing incinerators; and (iii) continued operation of existing incinerators. Tables of relative costs are included.

SAFETY MEASURES

CIVIL DEFENCE IN THE HOSPITAL

1753. REXED, B. Den civila hälso- och sjukvården i krig. **[The civilian health and hospital services in wartime.]** *Landstingens Tidskrift*, Stockholm, 1975, Sept., vol. 62, no. 10, pp. 31-32, 35-36.

The duty of the health service in war is to provide care to all sick or injured people, whether civilian or military, however the need arises and however the population may be distributed as a result of evacuation. The primary rescue services are the responsibility of the Civil Defence; the services' medical corps deal with battlefield injuries, and the hospitals are responsible for all other medical care. County hospital management committees must prepare plans providing for: (i) release of staff called up for service; (ii) maintenance of peacetime organization as long as possible; (iii) discharge of unnecessary patients, and restriction on non-acute admissions; (iv) optimal use of staff; and (v) allocation of national funds to make the most effective use of and improve resources. Plans must also be made for maintaining supplies: not only oil, but also normal expendables will be in short supply, and counties should consider establishing central purchasing and supply depots now. Staff must be informed of and

trained in their wartime jobs. The over-all Swedish defence plan, which includes medical preparedness, should be complete by 1977.

PLANNING FOR MASS EMERGENCIES

1754. RICHARDSON, J. W., editor. **Disaster planning: proceedings of a symposium held at the Royal Naval Hospital, Haslar, Gosport, Hants., on 10 and 11 October, 1975.** Bristol, Wright, 1975, [xii], 121pp. £5.00

The papers at this symposium were presented in three parts: (i) the problems resulting from various accidents, particularly in relation to the number and types of casualties which would arise in these events; (ii) the organization at the scene of a disaster relating to control, rescue, release, triage and transport of casualties; and (iii) the administration required at a designated hospital for the management of casualties arising from a disaster.

1755. **Moorgate tube train disaster: by members of the medical staff of three London hospitals.** *British Medical Journal*, London, 1975, Sept. 27, vol. iii, pp. 727-731.

Experience of the medical staff at a major subterranean accident scene showed that there appeared to be a substantial advantage in using site medical teams that could offer anaesthetic facilities. Adequate communication from the accident site to the hospital is essential. A review of the injuries sustained by the 113 casualties of the Moorgate tube train disaster has shown the need for rapid evacuation of casualties. Recognition of the 'crush syndrome' and its early consequence, hyperkalaemia, is important and a radical surgical approach is suggested. Chest injuries were common and contributed to many of the deaths.

RADIATION HAZARDS

1756. GIFFORD, D. **A new design policy for protective barriers in departments of X-ray diagnosis.** *British Journal of Radiology*, London, 1975, Oct., vol. 48, no. 574, pp. 851-857.

To calculate the thicknesses of protective barriers required in diagnostic X-ray departments for walls, floors, ceiling, screens, etc., it is necessary to assess the work load and occupancy of each room. To ensure that the barriers will be safe, the greatest kVp value used in the room is taken and calculations are made. A computer program has been written to provide data from a series of analyses of work load separated into kVp values, to provide exact values for the work load, which is then applied to each room under question. Thus, there may be considerable savings in cost as a result of applying the data, whilst the *Code of practice for the protection of persons against ionising radiations from medical and dental use* is still adhered to. Surveys were carried out to ascertain dosage levels to the staff and within existing rooms, and the results show that in practice the doses are such that the reduced barriers found by the method described would be entirely satisfactory.

THE PATIENT

ADMISSION AND RECEPTION

1757. KORVIN, C. C., PEARCE, R. H. and STANLEY, J. **Admissions screening: clinical benefits.** *Annals of Internal Medicine*, Philadelphia, 1975, Aug., vol. 83, no. 2, pp. 197-203.

A thorough clinical study was made of 1,000 screened patients admitted to a 575-bed general hospital in British Columbia during a six-month period. Each patient had 20 chemical and haematological tests, and results were compared with other results, considered normal for particular age and sex, which were found in the literature. Abnormal results, including those resulting in new diagnoses are tabulated. However, almost a quarter of new diagnoses were either consistent with common complications of the major clinical disease of the patient, or were suggested by superficial observation or questioning of the patient. Half of the new diagnoses did not result in any evident change in treatment; this was mostly due to the patient's age or the severity of his existing illness. In some cases new diagnoses could have been useful for subsequent treatment, but the use of such diagnoses was rarely made. Consequently such screening appears to be rarely beneficial, and many reports appear to give a false impression of its usefulness. There are 35 references to the literature.

WELFARE OF THE PATIENT

See also Abstract Nos. 1824, 1828

1758. NACMAN, M. and DE GARCIA, E. **Interpreters penetrate language barriers.** *Hospitals*, Chicago, 1975, Aug. 16, vol. 49, no. 16, pp. 62-65.

The community served by Strong Memorial Hospital, Rochester, N.Y., includes 20,000 to 30,000 Spanish-speaking persons. A survey of the use of hospital facilities by Spanish-speaking patients indicated that difficulties arose in three areas: medical, surgical and psychiatric treatment services; out-patient services; and emergency services. It also indicated that staff often used patients' families and friends as translators. An advisory committee that included representatives of the Spanish-speaking community was established. In January 1972 a bilingual services co-ordinator was recruited to: (i) provide translating services; (ii) identify other hospital staff able to provide translating services; (iii) establish liaison with community groups; and (iv) identify relevant positions that might be filled by bilingual staff members. Details are given of the training course provided for Spanish-speaking staff to enable them to fill the designated positions. Details are given of the operation of the new programme, which has reduced staff frustration and patient antagonism and has led to more productive staff-patient relationships.

1759. WEINBERG, H. **Staff overcomes cultural barriers to care.** *Hospitals*, Chicago, 1975, Aug. 16, vol. 49, no. 16, pp. 60-62.

Throughout the United States, there are many immigrant and ethnic populations. An understanding of their cultures and attitudes is essential to the delivery of

comprehensive health care. In the area served by Fordham Hospital, Bronx, N.Y., there are many Albanians most of whom speak only Serbo-Croat or Albanian. A bilingual Albanian patient advocate, who is administratively responsible to the department of ambulatory care, has been appointed to act as an interpreter and as a staff assistant who expedites the procedures necessary to ensure prompt and efficient care. A comparable position had previously been established to provide liaison with the Hispanic community. Albanians have been recruited to the housekeeping department and have proved to be excellent workers. Albanian-speaking and Serbo-Croat-speaking staff have been recruited and assigned to strategic positions in the emergency and out-patient departments. A list of bilingual staff has been compiled, courses on Albanian culture are held for the entire staff and the patient information book has been translated into Spanish and Albanian.

1760. MORRIS, R. W., BURKHART, V. de P. and LAMY, P. P. **Technical and theoretical aspects of patient counselling using audiovisual aids.** *Drug Intelligence & Clinical Pharmacy*, Hamilton, Ill., 1975, Sept., vol. 9, no. 9, pp. 485-488.

The traditional role of the pharmacist was concerned solely with dispensing drugs. He is now seen as a source of drug information for doctors, nurses and patients, and he has been given responsibility for patient education. The pharmacist may rely upon mechanical audio-visual aids to provide effective instruction to patients, and consideration has to be given to the merits of the various techniques. The aim of patient education is to alter the attitudes of the patients towards their therapy and drugs, and to maintain their condition. Theories concerning changes of attitude are outlined. The preparation and selection of the verbal and visual aids is analysed to ensure that the instruction is given the greatest impact. The pharmacist is suitable for educating patients in: (i) drug distribution; (ii) drug therapy; and (iii) the use of medication. A co-ordinated committee has been established to provide a standardized multi-disciplinary approach to patient education in the University of Maryland Hospital. The use of audio-visual methods is seen as a highly effective method of providing health education, in an efficient and sophisticated manner.

HOSPITAL SOCIAL WORK

See also Abstract No. 1714.

1761. DARKE, M. **Are part-time social workers useful?** *Health and Social Service Journal*, London, 1975, Oct. 18, vol. 85, no. 4461, pp. 2344-2345.

St. Luke's Hospital, Guildford, experimented with using part-time and locum (temporary) social workers as there had been no applications for an advertised full-time vacancy. Part-time social workers have been appointed since 1964 and by 1973 the principal medical social worker was the only full-time member of staff, with four part-time staff. Following an evaluation of the professional staff the author suggests that the system be adopted in social services departments.

TRANSPORT OF PATIENTS

See Abstract No. 1799

HOSPITAL CARE

See also Abstract Nos. 1723, 1808, 1812, 1823, 1825

1762. HARMAN, R. **Does an all-R.N. staff provide better quality care?** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Aug., vol. 17, no. 8, pp. 35-38.

In 1973, the Misericordia Hospital, Edmonton, Alta., undertook a series of studies to examine the hypothesis that the quality of patient care is significantly different when provided by an all registered nurse (RN) staff. The basis of the evaluation was a comparison of the performance of six medical-surgical nursing units, three staffed entirely by RNs and three by a combination of RNs and CNAs. A mechanism called the Nursing Services Information System (NSIS) was developed which consisted of a detailed nursing audit, census data, patient work load indices and staffing indices. The audit consisted of a review of the nursing component of the medical record and structural interview with the patient. Each of the units was exposed to three randomly selected audits during two eight-week test periods. A patient categorization programme was developed to provide a measure for patient-generated work load being experienced by each of six nursing units. A staffing index provided a measure for the number and type of nursing staff working on each unit. Tables and figures in the text illustrate the results of the study. In general there does not appear to be a significant difference between the quality of patient care provided by units staffed entirely by RNs and those with mixed staffs. Perhaps more important than the staffing complement are the motivation, attitude, leadership and organizational abilities of the nurse in charge.

1763. INMAN, U. **Towards a theory of nursing care: an account of the Rcn/DHSS research project 'The study of nursing care'.** London, Royal College of Nursing, 1975, 132pp. £1.30.

The major aim of 'The study of nursing care' project, established in 1967, was to develop techniques for measuring the quality of nursing care. This concluding volume examines collectively the 12 studies which have been carried out in an attempt to establish how far the original aims of the project have been met. It also includes suggestions as to how this research may contribute to the further understanding of nursing care. A list of 183 references to the literature is included.

1764. JONES, D. C. **Food for thought: a descriptive study of the nutritional nursing care of unconscious patients in general hospitals.** London, Royal College of Nursing, 1975, 185pp. £1.30.

This report describes the nutritional nursing care of unconscious patients admitted to 43 general wards in 12 hospitals. The author observed a total of 646 nasogastric feeds and examined both their nutritional content and the method of administration. The findings show disturbing discrepancies between recommended levels of nutrition and the actual content of nutrients given to unconscious patients. Some possible causes of these discrepancies are indicated and a number of guidelines which would improve this aspect of care are suggested.

1765. BUCK, C. R. **Terms and trends in quality assurance.** *Trustee*, Chicago, 1975, Sept., vol. 28, no. 9, pp. 32-34.

Several aspects of medical care organizations are assessed from the point of view

of quality of care. Structure, process and outcome are the most usual aspects. A major problem to assess is the complex relationship between the structure and processes of medical care and the subsequent outcome. Other terms used to describe and develop quality assurance assessment are: (i) utilization review; (ii) prospective review; (iii) concurrent review; (iv) retrospective review; and (v) medical audit, which consists of a series of special studies of specific aspects of medical care. Possible future trends in quality assurance include: (i) requirements from external agencies to perform effective reviews and audits; (ii) quality assurance reviews will be increasingly accepted as part of normal business; (iii) the reviews will expand from Medicare and Medicaid to include a majority of all patients; and (iv) in the long run it is hoped that the findings will be used to direct all future medical education programmes. Trends are also predicted for the establishment of standards of care. In conclusion the most important challenge is to demonstrate that the provision of medical care can be effectively regulated largely from within the profession.

1766. CARDWELL, H. M. **A second look at PSROs.** *Trustee*, Chicago, 1975, Sept., vol. 28, no. 9, pp. 17-18.

The purpose of a Professional Standards Review Organization (PSRO) is to be responsible for continuous review of the care given in hospitals and other institutions to patients covered by Medicare and Medicaid, and federal maternal and child health programs. The purpose of PSROs is to ensure that the care given to patients is medically necessary, acceptable in quality and administered in the most acceptable fashion. The organization of each PSRO is outlined, with each individual PSRO encompassing 300 to 2,500 practising physicians. The PSRO legislation provides a unique opportunity for hospitals and their medical staffs to assume leadership in developing review programmes.

1767. PORTER, K. W. **An 'inhouse PSRO' success story.** *Trustee*, Chicago, 1975, Sept., vol. 28, no. 9, pp. 28-30.

At the Kansas City General Hospital and Medical Center, a quality assurance programme has been installed to monitor and report to the board in layman's terms all that needs to be known about the quality of care being provided in the institution. The scheme began in 1973 and has two aims: (i) patient care audit designed specifically to meet the information needs of the medical staff, the board and the administration section; and (ii) utilization review to focus on the efficient use of the hospital's patient care resources. Several audits have already resulted in significant changes in practice patterns by the professional staff. Tests carried out in small hospitals prove that the scheme can be used effectively for both large and small hospitals.

1768. WALDMAN, M. L. **A progress report on the medical audit study.** *Hospital Progress*, St. Louis, 1975, Aug., vol. 56, no. 8, pp. 59-64.

A procedure for performing medical audit studies using the Medical Audit Study Worksheet (MASW) was disseminated by the Commission on Professional and Hospital Activities in 1972 to help hospital medical staffs solve the problems encountered with medical audit. This paper is a progress report on a medical audit study published in *Hospital Progress* in 1973 [see *Hospital Abstracts*, Vol. 13, Abstract 1000]. It describes the organization of an audit, the selection of patients to audit, scheduling a

study, the establishment of 'pattern standards', the choice of parameters, the avoidance of pitfalls and the method of data retrieval. Once problems have been discovered and analysed the greatest problem facing the medical staff is how to elicit action to change behaviour. Ways of doing this are considered. For each medical audit study a formal study file is required to collect the documentation. In addition to the MASW this should include a summary to be transmitted to the governing body and to be read by all medical staff and reports from various individuals required to take the recommended action.

1769. WHELAN, W. M. **PSRO: what's a trustee to do?** *Trustee*, Chicago, 1975, Sept., vol. 28, no. 9, pp. 22-25.

Hospital trustees are interested and involved in Professional Standards Review Organizations (PSRO) for two reasons: (i) quality assurance; and (ii) over-abuse of the Medicaid and Medicare systems by the hospital, resulting in the termination of the agreement and payments. Under PSRO the hospital will still retain its responsibility to the public for high quality care, but since it is not directly represented in the PSRO structure the relationship between it and the PSRO will have to be investigated. The PSRO guidelines require a more complicated and expensive review mechanism than currently exists in many hospitals, although a hospital may apply to the area PSRO for full or partial delegation of review activities. Several observations are made: (i) hospitals will have to become stricter and control costs by eliminating unnecessary care whilst providing high quality care; (ii) patient care studies should become more relevant and the results should be visible; (iii) the PSRO regulations should support effective in-house reviews by the medical staff of hospitals; (iv) PSRO-hospital relationships should be clearly defined.

1770. MCFARLANE, J. K. WATKIN, B. and SHOUT, M. G. **Standards of care. 1. A question of care.** *Nursing Mirror*, Sutton, Surrey, 1975, Oct. 2, vol. 141, no. 14, pp. 47-51.

The three papers given at the first session of a symposium organized by the *Nursing Mirror*, dealt with: (i) what is meant by care; (ii) how care is managed; and (iii) whether nurses learn to care.

HOME CARE, AFTER-CARE

See Abstract No. 1826

SPECIAL DEPARTMENTS

OPERATING SUITES

See also Abstract Nos. 1687, 1751

1771. MURMANN, J. and KNAPP, E. J. **Clean room operating theatre with laminar air-flow** *Electromedica*, Erlangen, 1975, vol. 43, no. 4, pp. 124-128.

In addition to the conventional methods for the prevention of patient infection there are new methods to combat the relatively high rate of infection of 10 per cent in implantation surgery. The technique involves a suitable air-flow (horizontal or

vertical laminar air-flow) and a high rate of air change (up to 600 air changes an hour) in order to eliminate rapid contamination occurring in the operating theatre—largely caused by the operating team and their activities. Protective gowns with an exhaust system to remove expelled air must be worn, and the positioning of the operating team has to be considered. With reference to the equipping of clean room operating theatres with ceiling-mounted units, there are no problems involved with horizontal air-flow. However, where the ceiling is designed as the filter area and there is a vertical down-flow of air it is correspondingly difficult to find points of suspension between the filter segments. The results obtained with the two types of clean room appeared to be independent of the type of air-flow selected, whether horizontal or vertical.

1772. DRAKE, J. **Report on operating theatre staff training and conditions in Holland.** *NATNews*, Matlock, 1975, Sept., vol. 12, no. 7, pp. 24-26.

A study visit was carried out to eight hospitals in the Netherlands to examine: (i) the medico-legal aspects of work in the operating theatres; (ii) direct patient care; (iii) new ideas applicable to the United Kingdom; and (iv) to give an assessment of the staffing and training within departments. A questionnaire was used as a basis for the survey. The background to the medical service in the Netherlands is outlined, together with the training, qualifications and responsibilities of the staff. The medico-legal aspects and working conditions are compared with those in Britain. In conclusion, the problems faced by the co-ordinators and head nurses were similar to those experienced in Britain: there is a shortage of staff, but a reluctance to employ part-time staff because of associated difficulties; and student nurses spent little or no time in the operating suite during their training.

1773. CINTER, C. **A computer moves into the O.R.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Aug., vol. 17, no. 8, pp. 26, 31.

At the Hospital for Sick Children, Toronto, a computer is being used to provide pump-priming figures for the heart-lung machine. A 'menu page' appears on the computer screen by means of which the clinician types in the program he wants and information is supplied on the patient's age, weight, condition, etc. The computer calculates what the mixture should be and types out the exact proportions and makes other recommendations. Another use of the computer is in non-invasive measurement of cardiac output—measuring the chest impedance with each heart beat by narrow strips of aluminium placed round the patient's chest. On-line monitoring is especially vital in checking the supply-demand index. The doctors are immediately aware when this falls below 0.7 and they can increase the heart rate or speed the circulation to supply more oxygen to the heart. The quick and accurate calculations are invaluable to the technician who previously had to use a slide rule and graphs. The computer also has the advantage of being able to store figures and make them available at several outlets.

ANAESTHESIA

1774. CRAWFORD, J. S. **Some hazards of anaesthesia for obstetrics.** *Midwives Chronicle*, London, 1975, Oct., vol. 88, no. 1,053, pp. 344-348.

General anaesthesia is now considered one of the five most important causes of

death during pregnancy, the other four being abortion, pulmonary embolism, haemorrhage and toxaemia. A survey was conducted into anaesthetic involvement in obstetric services in the Birmingham Regional Hospital Board hospitals from July 1972 to January 1973. Various aspects of anaesthetic hazards were analysed including: (i) the effect of haemorrhage; (ii) caval occlusion; and (iii) regurgitation—aspiration. Prophylactic treatment was suggested for all hazards, and in conclusion it is suggested that every obstetric unit should be provided with a fully committed and actively interested anaesthetic staff.

PHARMACY

See also Abstract No. 1760

1775. BURLESON, K. **The pharmacist's role in a community drug addiction treatment program.** *Hospital Pharmacy*, Philadelphia, 1975, Aug., vol. 10, no. 8, pp. 327-328, 332.

A treatment scheme to deal with drug addiction has been set up in High Point, North Carolina. The project is staffed by volunteer professionals who co-ordinate the entire service; the only salaried members of the staff are the programme and project directors. Drug substitution therapy is carried out using Methadone, either for detoxification or, for addicts who have a history of over two years of drug taking and repeated detoxification failures, for maintenance treatment. Since the medical director is unable to see each client on a daily basis, as they present themselves for treatment, the hospital pharmacist acts as liaison, and can administer non-prescription drugs for various common complaints e.g. nausea. In spite of the low success rate, only 10 per cent have remained free from drugs for over a year, it is believed that the scheme is beneficial both to the community and to the client, and that its continued operation is justified.

1776. MCEVILLA, J. D. and LEWIS, M. C. G. **The use of computers in pharmacy in the year 2000.** *Drug Intelligence & Clinical Pharmacy*, Hamilton, Ill., 1975, Aug., vol. 9, no. 8, pp. 439-446.

This paper reviews current pharmaceutical practice, and describes pharmacy's changing role in view of recent advances in drug manufacture and relevant automated equipment. At present, computerized techniques can assist practising pharmacists by producing: (i) automated patient profiles; (ii) automated labels for prescription containers; (iii) financial control procedures; and (iv) automated dispensing. The last point is at present possible, but has not been implemented. Input data for these procedures is readily available to community pharmacists, and will include patient details, the medication prescribed, its amount and cost. Diagnostic and other information about a patient can be obtained from his doctor if necessary. The pharmacist's role needs to be widened in future to include an advisory aspect as well as simple dispensing if his skills and the automated techniques available to him are to be fully exploited. Future aspects of his work may thus include: quantitative drug utilization review decisions; advising patients on the use of drugs, using a centralized and up-to-date data bank; claims review on behalf of third parties; advising doctors on prescribing practice; and providing information on drugs.

1777. SIMBORG, D. W. and DEREWICZ, H. J. **A highly automated hospital medication system: five years' experience and evaluation.** *Annals of Internal Medicine*, Philadelphia, 1975, Sept., vol. 83, no. 3, pp. 342-346.

Since 1969, medications have been provided to patients at the John Hopkins Hospital using a computer system that controls the entire medication process from entry of physician's order to hourly drug distribution. Special envelopes containing patient and dosage information are computer-generated for each dose to be administered. These envelopes, containing individually labelled ready-to-administer doses, are delivered to the nursing units hourly. The system provides daily medication profiles, drug administration histories, discharge summaries, and management and billing reports. Medication errors of omission were 4.6 times more frequent on the nursing units using the traditional system compared with the computer system. Registered nurses spent 56 per cent less time performing medication-related activities on the units served by the computer system. For 250 beds, total costs are seven per cent higher using the computer system; for 450 beds, total costs are 14 per cent lower using the computer system.

1778. CLOSSON, R. G. and KIKUGAWA, C. A. **Noncompliance varies with drug class.** *Hospitals*, Chicago, 1975, Aug. 16, vol. 49, no. 16, pp. 89-90, 92-93.

Over a period of five weeks, 101 out-patients were interviewed by a pharmacist in either the comprehensive medical or the general surgery clinics at the Veterans Administration Hospital, San Francisco. Sixty-five of the patients made an error in taking one or more of their prescribed medicines; these patients made 84 errors in taking 271 medicines prescribed with instructions allowing no divergence. Classification of the drugs by the therapeutic class showed that the percentage of errors was significantly higher in two classes—tranquillizers and antacids and adsorbents; errors in taking cardiac drugs were significantly less. The results are discussed in some detail and possible remedies are suggested.

1779. TACKITT, R. D. and WINSHIP, H. W. **Effects of an outpatient pharmacy on the acquisition of prescription medications by emergency room patients.** *Hospital Pharmacy*, Philadelphia, 1975, Aug., vol. 10, no. 8, pp. 333-334, 338-339.

A survey was conducted to determine the effects of an out-patient pharmacy on the acquisition of prescription medicines by patients treated in the emergency room of a private, non-profit-making hospital in the United States. The hospital had formulated plans to open an out-patient satellite pharmacy, and as a result of the findings of the survey two recommendations were made: (i) the need to tell the emergency room medical staff the location, purpose and function of the out-patient pharmacy; and (ii) the hours of operation of the pharmacy should be extended to coincide with the peak periods of activity in the emergency room. Tables of the findings are included.

1780. SANDERSON, D. **The pharmacy department as a link between hospital and regional drug information centre.** *Journal of Hospital Pharmacy*, London, 1975, Oct., vol. 33, no. 5, pp. 125-6, 129, 131, 132.

Pharmaceutical enquiries made to the pharmacy department by staff of the West Suffolk Hospital, Bury St. Edmunds, and those referred to the regional drug information

centre, were analysed. A large volume of information is provided by pharmacy departments which is not recorded in the information statistics, and to record this a daily survey of enquiries received from the West Suffolk Hospital was carried out at the regional centre and at the pharmacy. The initial survey was carried out by logging the verbal exchange of question and answer for four weeks. As a result, an enquiry form was prepared ensuring standard information from each enquiry. The pharmacy department was found to be an active source of drug information, dealing on average with 10 drug-related enquiries a week. The department was able to answer 92 per cent of all enquiries, and was effective in filtering enquiries for formal information centres; only six per cent of the enquiries were passed on to the regional centre.

1781. MURRAY, F. A., TOPLEY, G. and METCALFE, G. **Drug monitoring trial.** *Health and Social Service Journal*, London, 1975, Oct. 4, vol. 85, no. 4459, p. 2216.

A drug monitoring pilot scheme was introduced in two hospitals in Portsmouth, Queen Alexandra Hospital and St. Mary's Hospital and to selected wards within each. The ward drug stock was pared to the minimum, and the stock replaced on a one-for-one basis by a card-ordering system. Drug orders no longer have to be written. Figures for expenditure on a weekly basis are produced by staff, any drug can be monitored and retrospective studies can be carried out, since the issues are recorded on the ordering cards. The pharmacist visits wards to check treatment cards and to offer advice on drug usage. The scheme has now been in operation for two years and savings have been made in all areas by: (i) the education of nurses; (ii) prevention of shelf life expiry problems; and (iii) encouraging junior staff to adopt a more critical attitude to their prescribing habits. In conclusion, the implementation of cost-effective techniques does not interfere with clinical decisions, but leads to a more efficient control of drug prescription.

1782. CURETON, G. L. and HALL, N. C. **A new delivery system for unit-minimal dose ophthalmic medications.** *Hospital Pharmacy*, Philadelphia, 1975, Aug., vol. 10, no. 8, pp. 340, 344-346, 348.

The advantages of unit single dose and unit/minimal dose applications of medicine are: (i) convenience; (ii) safety; and (iii) accuracy. It is thought that the best container for ophthalmic solutions is the single dose applicator in view of the need to maintain sterile conditions. A new method for maintaining ophthalmic solutions in a sterile state is the UNI-MINS which has been tested and developed both for hospital and for home use. The advantages of this method lie not only in the assurance of sterility for single dose usage, but also it is designed to maintain sterility for minimal, multiple dose usage. It is also convenient to store, dispense, open and administer. Tables indicating the requirements of unit-minimal dose ophthalmics, and UNI-MINS antimicrobial activity are included.

1783. MURAIDA, R. M. **A complete unit dose drug distribution system.** *Hospital Pharmacy*, Philadelphia, 1975, Sept., vol. 10, no. 9, pp. 364-365, 368-372.

St. Luke's Hospital Medical Center, Phoenix, Ariz., is a non-profit health care centre specializing in cardiovascular, respiratory, mental health and ophthalmological care. A unit drug dose distribution system has been developed in which the pharmacy

department prepares, distributes and controls medications. The department provides a 24-hour service, a total unit dose drug distribution system, a complete intravenous admixture programme, out-patient services, daily itemized medical listing and in-service education. There is a staff of 10 pharmacists and 12 support staff. The system is outlined with examples of the stationery used by the department. However, the present system is in its infancy, and it is planned to computerize the daily receipt of the orders, cutting out the need for handwritten entries, and having a printout of the totals at the end of the day.

1784. SAUVÉ, F. **Some practical aspects of unit-dose.** *Canadian Journal of Hospital Pharmacy*, Saskatoon, 1975, May/June, vol. 28, no. 3, pp. 87-88.

This paper highlights some of the steps in approaching conversion to a unit dose drug distribution system. Preliminary steps include: make the decision, study the present system, determine what changes are necessary, set goals and target dates, design the system, select equipment and place orders, design or re-design forms and determine additional staff and space needs. Steps in getting the system operational are: hire any additional staff, start packaging programme, set up the dispensing area, set a target date, start in-service training, adapt the system for each unit, introduce new medication record forms, set up patient drug profiles, set up the trolley, start in the first unit, review, evaluate, revise, and expand the system.

1785. **The results of a questionnaire on unit-dose packaging and drug distribution systems.** *Canadian Journal of Hospital Pharmacy*, Saskatoon, 1975, May/June, vol. 28, no. 3, pp. 94-98.

A questionnaire on unit dose drug packaging and distribution was completed by 228 hospitals in Canada, 51.6 per cent of those to whom it was sent. It was designed to evaluate the development of unit dose systems since a previous survey in 1970. The results are presented in 16 tables. They indicate that 53.8 per cent of the reporting hospitals use some unit dose packaging, an increase of 16 per cent. The peel-off bubble package is still the most acceptable form of packaging for solid dosage forms. Unit dose distribution systems are being designed or implemented by 43.9 per cent of the respondents.

LABORATORIES

1786. COONEY, J. P. and STITH, J. R. **Consolidation of clinical laboratory facilities: an evaluation. Part one.** Chicago, Health Services Research Center, 1974. viii, 151pp.

In order to develop informational base lines from which the usefulness and effects of centralized laboratory services can be studied, the National Center for Health Services Research and Development contracted with the Health Services Research Center to evaluate the consolidated clinical laboratory services to be developed by some of the institutions within Northwestern University's McGaw Medical Center. The results of this evaluation have been organized in two parts. Part one includes

evaluations of the impact of the consolidation on the cost and quality of laboratory services as well as an assessment of the organizational and administrative charges resulting from the consolidation. Part two includes guidelines for those interested in planning and evaluating shared laboratory services.

1787. EILERS, R. J. **Quality assurance in health care: missions, goals, activities.** *Clinical Chemistry*, Winston-Salem, 1975, Sept., vol. 21, no. 10, pp. 1357-1367.

To meet the challenge of quality assurance in health care a review of the aims and systems of quality control was carried out under the headings of: (i) design control; (ii) incoming material control; (iii) process control; (iv) output control; (v) reliability control; and (vi) special verification studies. The review revealed the large number of problems, and opportunities open to organizations and their staff. In conclusion the laboratory staff and professionals should consider the sharing of knowledge and expertise to assure relevant and useful results for all aspects of the health service, and to lead to a more quality assured organization. There is a bibliography with 21 references.

1788. LABONTE, A. **Which way to clerical efficiency in labs?** *Hospitals*, Chicago, 1975, Aug. 16, vol. 49, no. 16, pp. 81-84.

The first step in an evaluation of the clerical work load in the laboratory at St. Vincent Hospital, Worcester, Mass., was to develop specific criteria that defined the characteristics of clerical efficiency in the laboratory. In order to identify and define accurately the primary areas of repetitive clerical effort that directly affect efficiency, an extensive methods time measurement study was undertaken. Four possible solutions to the problem of achieving clerical efficiency were then selected and compared: (i) expansion of the existing manual system; (ii) automation through expansion of the hospital's existing system; (iii) automation through a shared computer system as a purchased service; and (iv) automation through a dedicated laboratory computer system. It was shown that the last alternative had the greatest impact on efficiency, cost and patient care. The hospital is currently evaluating the potential impact of the dedicated computer system on existing systems and its potential integration into the total patient information system.

1789. SHARPE, T. C. and CLARK, D. E. **General purpose information handling techniques for pathological data.** *Computers in Biology and Medicine*, Oxford, 1975, Sept., vol. 5, no. 3, pp. 221-233.

This paper describes a set of three programs which can be made available to the pathologist as a simple but powerful tool in retrieval from free-text reports: (i) CONCORD, a concordance and dictionary-producing program; (ii) CONQUEST, a retrieval program; and (iii) CONDIC, a thesaurus generating program. The pathologist may specify a combination of words, or a numerical quantity in a given range, as the condition for selection; the identification numbers and, if required, the texts of the selected reports are printed back for his perusal. There is no restriction on the terminology which may be used in the reports, but a cumulative dictionary of terms is produced for quality control. The programs are written almost entirely in FORTRAN.

DIAGNOSTIC X-RAY DEPARTMENT

See also Abstract No. 1756

1790. BOTT, M. J. **A proposed scheme of training for darkroom technicians.** *Radiography*, London, 1975, Oct., vol. 41, no. 490, pp. 235-236.

A scheme for training dark room technicians in the Middlesbrough group of hospitals has been proposed. The organization of the course will be by staff from the School of Radiography, whom it is felt are best equipped for carrying out the scheme. A proficiency certificate will be awarded on successful completion of the course, which it is hoped will be recognized by a national scheme, when it appears. A job description for dark room technicians is given and a syllabus of training is based upon it. It is hoped that: (i) in-service training will be organized for dark room staff; (ii) education will promote job satisfaction; and (iii) a local course for the Middlesbrough group of hospitals will save the cost and inconvenience of attending courses elsewhere.

1791. Organisation du centre d'endoscopie. **[Organization of an endoscopy centre.]** *Gestions Hospitalières*, Mantes, 1975, April, no. 145, pp. 315-324.

A diagnostic and therapeutic centre for the various kinds of endoscopy should be rationally planned. Problems connected with equipment, design, fittings of the endoscopy rooms and staff are analysed. The need for sufficient equipment kept in perfect condition, is stressed. The lay-out should reflect three guiding rules: (i) rational circulation; (ii) patient comfort; and (iii) proper working conditions for staff. The endoscopy room, which should be a functional unit, should satisfy the following requirements: (i) an adequate supply of electricity, fluids, supplies, drugs; (ii) meticulous maintenance of equipment; (iii) adequate documentation; and (iv) good organization and immediate availability of all material and equipment in order that endoscopy could be carried out in the best conditions. Staff should consist of full-time specialists in endoscopy, a radiologist, an anaesthetist, students, sisters and nurses who have training in endoscopy, technical staff and medical secretary.

REHABILITATION

See also Abstract No. 1829

1792. GREAT BRITAIN. WELSH OFFICE. **Rehabilitation services in industrial South Wales: report of a working party appointed by the Secretary of State for Wales.** Cardiff, Welsh Office, 1975, [viii], 92pp.

The working party was set up to examine the organization and operation of the rehabilitation service in industrial South Wales, with particular reference to the special units at Talygarn Rehabilitation Centre and Rookwood Hospital. Its report discusses existing services and makes recommendations on: the basic pattern for the future; the future of the special units; interim hospital developments; appliances

and equipment; location of the artificial limb and appliance centres; special housing and home adaptations; and education and the role of the demonstration centres.

OCCUPATIONAL THERAPY DEPARTMENT

See Abstract Nos. 1688, 1809

DEPARTMENTS FOR SPECIAL THERAPY

See also Abstract No. 1775

1793. ALLANDER, E. and ROSENQVIST, U. **Screening—an efficient tool in outpatient endocrine care: studies of the diagnostic process.** *Scandinavian Journal of Social Medicine*, Stockholm, 1975, vol. 3, no. 2, pp. 51-60.

A screening procedure based on physical examination alone was set up at the out-patient unit of Department of Endocrinology and Metabolism, Caroline Hospital, Stockholm. The effectiveness, efficiency and volume of this diagnostic process were evaluated by a study of case records and a questionnaire. The basis for the investigation was the list of 296 individuals booked for the screening procedure at the out-patient department in 1968. The percentage of confident endocrine diagnoses increased from 31 per cent to 39 per cent, and a considerable change in the diagnoses was also noted. The use of the screening procedure saved approximately $30,000. It was concluded that diagnostic screening by an experienced endocrinologist is inexpensive, efficient and safe, and the use of the screening procedure made it possible to offer highly specialized treatment to more people.

1794. HART, P. F. **Psoriasis day care.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Aug., vol. 17, no. 8, pp. 24, 31.

Day care is being used for those psoriasis patients for whom out-patient treatment is unsuitable yet who do not require admission to hospital. The treatment used is the Goeckerman regimen (application of tar and ultraviolet light) and it lasts from about 0800 to 1600. Patients go for treatment daily for six consecutive days and after three to four weeks there is usually a 75 to 100 per cent clearance of the skin. The day care centres need not be in a hospital but should be near one to call on the services of a dermatologist and certain facilities. Two centres are described. That in San Francisco is in a house about two blocks away from the hospital which supplies laundry and catering services. It can treat six day care patients and a few out-patients. Staff consists of two registered nurses, an aide and the dermatologist. Facilities include changing and wash-rooms for men and women, bathroom, treatment rooms, a lounge, a quiet room and a pantry. The programme is especially oriented towards meeting patients' social needs. Costs are about one-third of in-patient care. The centre at San Diego, Calif., is adjacent to a private dermatology practice. It also caters for five or six day patients and some out-patients but all patients have a private room. It is suggested that a disused nurses' home would provide a very suitable centre because of the many small single rooms.

INTENSIVE CARE UNITS

See also Abstract Nos. 1689, 1743, 1744

1795. HILBERMAN, M. and others. **An evaluation of computer-based patient monitoring at Pacific Medical Center.** *Computers and Biomedical Research*, New York & London, 1975, Oct., vol. 8, no. 5, pp. 447-460.

A computer-based patient monitoring system has been in use in the cardio-pulmonary intensive care unit, Pacific Medical Center, San Francisco, for eight years. This paper reports results of a two-part objective evaluation of the effectiveness of the system. The first study documented the use of the system by the clinical staff, including an average number of interactions per hour and per post-operative hour, category of information requested and type of user. The second study investigated the impact of the monitoring system on morbidity and mortality. The outcome variables consisted of death rates, stay in unit, days on respirator, days with arterial line, number of arterial blood gases, and nurse to patient ratio per day. The results showed essentially no difference between the monitored and control groups. A discussion of the problems in evaluating the impact of monitoring systems is included.

1796. HILBERMAN, M. and PETERS, R. M. **A data collection system for intensive care.** *Critical Care Medicine*, New York, 1975, Jan./Feb., vol. 3, no. 1, pp. 27-30.

The Department of Surgery, University Hospital, University of California at San Diego, Calif., has developed an intensive care flow chart in anticipation of the automation of all records kept by nurses. Two data sheets were developed to replace all previous records used by the nurses; examples of these are included. Peel-off labels were introduced to alter the scales or data on the forms as required, obviating the need for a series of extra forms. The advantages of the system are: (i) all record-keeping duties are logged on the data sheets; (ii) a subsection for information most needed by doctors is included to cut down time reviewing the case; (iii) the basic format can be easily modified; (iv) through the use of colours to record information on the sheets trends can be more easily detected; (v) the sheets fold up to a standard size - 11 inches by 8½ inches for ease of storage; and (vi) the sheets are easy to microfilm.

1797. SCOTT, A. **The changing roles and goals of respiratory technologists.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Aug., vol. 17, no. 8, pp. 41-42, 44.

The past three years have seen a substantial growth of professionalism in respiratory technology in Canada. A uniform standard of training has been adopted and the evaluation process by means of examinations has been improved. As the technology has expanded and government has become more involved in the provision of health care there has developed categorization of individuals in the health team and some stratification of tasks. Satisfaction with their present role and increased work load has largely provided the incentive to expand the respiratory technician's role. Training is divided between community colleges or hospital schools and practical experience in the hospital. It is important for a link to be maintained between the formal training and clinical experience. The role of the respiratory technologist and his goals are

bound to change within the next few years. Three areas where activity will probably decrease are: (i) reduction in IPPB treatments; (ii) fewer cleaning and sterilization activities owing to the use of disposables and central sterilization; and (iii) removal of out-patient care from hospitals to community clinics. Areas of increased activity may include: provision of services on a regional basis; responsibility for patient transport in and between hospitals; procedures such as intubation, arterial blood sampling and defibrillation; serving as an anaesthetic assistant; pump technology; hyperbaric medicine; and electronic monitoring and measurement.

1798. ROSE, G. **The contribution of intensive coronary care.** *British Journal of Preventive & Social Medicine*, London, 1975, Sept., vol. 29, no. 3, pp. 147-150.

Coronary care units are expensive consumers of scarce resources, and it is unfortunate that there has been little attempt to evaluate their achievements; even simple data relating outcome to age, duration of stay, and severity are not available. Indirect evidence is presented from the Hospital In-patient Enquiry and the national mortality reports for England and Wales. Over the period in which intensive care facilities have become widespread the hospital admission rates have risen steeply but numbers of hospital deaths have been stable. A part of this decline in case fatality has probably resulted from therapeutic advance, but most is probably due to the admission of larger numbers of milder cases.

1799. BLAKE, A. M. and others. **Transport of newborn infants for intensive care.** *British Medical Journal*, London, 1975, Oct. 4, vol. iv, pp. 13-17.

During the three years 1972 to 1974, 222 newborn infants were transported to University College Hospital, London, for intensive care. They were collected by trained staff using a specially modified transport incubator with an in-built mechanical ventilator and facilities for monitoring body temperature, heart rate, and inspired oxygen concentration. The distances covered ranged from half a mile to 50 miles, with a median of eight miles. The principal reasons for referral were low birth weight and severe respiratory illnesses. Altogether 109 (49 per cent) of the infants needed mechanical ventilation in transit and another 38 (17 per cent) later. During the journey the condition of 88 (40 per cent) was thought to improve, in 125 (56 per cent) it was static and in nine (four per cent)—four of whom died—it deteriorated. A total of 142 infants (64 per cent) survived the neonatal period. There was no correlation between distance travelled and survival rate. Seriously ill newborn infants may be transported safely to a referral centre within a radius of 50 miles; the risks of the journey are negligible compared with the risks of leaving the infant in a hospital that is not staffed or equipped for neonatal intensive care.

SPECIAL HOSPITALS AND UNITS

OUT-PATIENT

See Abstract Nos. 1760, 1778, 1779, 1793, 1813, 1816

CASUALTY AND ACCIDENT

See also Abstract Nos. 1690, 1779

1800. VONBERG, D. and RATHER, M. E. **MERCI: the Illinois emergency radio communications system.** *Hospital Progress*, St. Louis, 1975, Sept., vol. 56, no. 9, pp. 52, 54, 56.

In 1971 the Director of the Division of Emergency Medical Services, Illinois State Department of Public Health, decided that rapid communication was an integral and essential part of a total systems approach to emergency medical services and, in 1972, a communications system was implemented. The state was divided into six regions and within each region a hospital was selected as the base centre. St. John's Hospital, Springfield, in region 3A, oversees 18 counties as regional base centre, and maintains direct radio communications with emergency vehicles and helicopters within the region. The advantages of the MERCI (Medical Emergency Radio Communications of Illinois) net communication system are: (i) it facilitates the administering of the appropriate treatment to patients; (ii) it permits helicopters to notify the hospitals directly concerning their estimated time of arrival; (iii) it co-ordinates the resources of all the hospitals so that the best use can be made; and (iv) it co-ordinates all hospitals for disaster drills. Several problems (i) staffing; (ii) operations procedure; and (iii) the operation of the Federal Communications Commissions' regulations, had to be overcome, but the medical emergency radio communications system is now recognized as a landmark in the development of an emergency medical service.

1801. APPELBAUM, A. L. **Full-time physician coverage makes emergency department entry point.** *Hospitals*, Chicago, 1975, Aug. 16, vol. 49, no. 16, pp. 77-80.

An experimental programme in rural North Carolina aims to encourage community hospitals and their medical staffs to assume a wider role in community health affairs. The first project is designed to test the hospital emergency department as a potentially effective portal of entry into the health care system for the currently underserved population. Funds are being made available to each hospital to meet half the cost of employing full-time medical staff in the emergency department. The background to the project and its current status are outlined and a number of comments by trustees, administrators and medical staff are presented.

1802. STALCUP, S. A. and others. **Planning for a pediatric disaster—experience gained from caring for 1600 Vietnamese orphans.** *New England Journal of Medicine*, Boston, Mass., 1975, Oct. 2, vol. 293, no. 14, pp. 691-695.

The arrival of 1,600 Vietnamese orphans in San Francisco required the rapid development of a co-ordinated disaster plan, including the overnight establishment of a 1,000-bed paediatric hospital. Since one-third of the orphans were under six months old, conventional nursery resources were insufficient and a 'warehouse' model was implemented. This process required development of a transport and communication system, the services of 800 physicians, 1,400 nurses and 3,200 volunteers and 162 back-up acute beds. It is recommended that as a result of the unusual problem

presented by the infants and small children, American cities evaluate their emergency plans with special reference to the needs of children.

1803. LILLYSTONE, D. **Emergency clinic for children.** *Nursing Times*, London, 1975, Sept. 25, vol. 71, no. 39, p. 1553.

An emergency clinic for children was set up in April 1973 at Queen Charlotte's Maternity Hospital, London, for general practitioners (GPs) to refer children for a paediatric opinion. The clinic is held for an hour each weekday, from 1100 to 1200, in a room adjacent to the children's ward, in a more relaxed atmosphere than that generated by the casualty department. The clinic is run by a paediatric registrar with the help of a resident paediatric student. The child is first seen by the student who examines and takes the case history of the child; the paediatric registrar then assesses the case and arranges treatment. In the first year the clinic was used by 125 GPs, referring 425 children; the most common disorders were of a respiratory nature. Four reasons for referral to the clinic emerged: (i) the duration of the symptoms; (ii) failure to respond to the treatment of the GP; (iii) the inability of the child to take medicine; and (iv) increasing maternal anxiety. It is felt that the clinic is of value in that it brings the paediatric service closer to the community without too much formality.

DAY HOSPITALS

See Abstract No. 1794

CHEST

See Abstract No. 1797

CHILDREN

See also Abstract Nos. 1718, 1802, 1803, 1816, 1827, 1828

1804. LITTLEFIELD, J. W. **Some thoughts on pediatric education and the regionalization of pediatric care.** *Johns Hopkins Medical Journal*, Baltimore, 1975, July, vol. 137, no. 1, pp. 48-50.

This paper stresses the importance of allowing trained paediatricians to deal with primary care of children, rather than only being involved in more specialized care. Primary care should be emphasized more in medical education; the development of paediatric training at the Johns Hopkins University School of Medicine is briefly described. The importance of the regionalization of paediatric care is illustrated by the various links being developed between the Johns Hopkins School and Hospital and other hospitals in the area including the University of Maryland. Some areas of research remain the province of individual hospitals in the area, whereas other schemes such as research into child abuse are being developed jointly. The role of the community hospital is seen as providing secondary referral care, both ambulatory and in-patient. Increased paediatric training for other health workers, integrated with training of medical students, will ensure that team work becomes the basis for much primary care.

1805. LEE, D. H. **The role of teachers in hospitals.** *Special Education: Forward Trends*, Southwell, 1975, Sept., vol. 2, no. 3, pp. 21-23.

There are two types of teachers who work in hospitals, those who are employed as teachers in hospital wards, and those who are employed as staff members of a hospital school. Generally the latter have better pay, working conditions and equipment. Three aspects of teaching are stressed: (i) the remedial; (ii) the compensatory; and (iii) the anti-institutional. The qualities needed for a good hospital teacher are outlined; they must be reliable, modest, realistic, discreet and deeply committed to the all-round care of children. In conclusion, it is emphasized that the role of the teacher is not that of a sophisticated child-minder but that of giving a child a form of education in some way better than he would normally receive.

GERIATRICS AND LONG-STAY

See also Abstract Nos. 1691-1693, 1829

1806. MANARD, B. B., KART, C. S. and VAN GILS, D. W. L. **Old-age institutions.** Lexington, Mass., D.C. Heath, 1975, xvi, 159pp. £6.95.

After considering the social and economic characteristics of the elderly in the United States, the authors go on to discuss the varying types of residential accommodation available and their characteristics. Detailed studies are then made of the institutions in three states: Massachusetts, Virginia and Utah. Some of the findings are considered and conclusions drawn.

1807. LODGE, B. and GREENAWAY, S. **Geriatric medicine in a community hospital.** *Gerontologia Clinica*, Basel, 1975, vol. 17, no. 3, pp. 109-125.

A study to assess the appropriateness of the care given to patients of 60 years and over in general practitioner community hospital beds at Abingdon Hospital, Berkshire, is reported. The results of the survey are given in terms of physical, functional and individual patient data. The appropriateness of the care and measures to improve it are discussed. The relationship between the local general practitioners attending the community hospital and the local consultant physicians in geriatric medicine is analysed and suggestions for improving their combined services to the community hospital are suggested. The consultants would hold regular out-patient clinics in the community hospital and would provide a consultative service for patients in the community hospital beds. The establishment of specialist beds on the site would cater for the slow-stream type of patient and the presence of specialist rehabilitative beds would act as a catalyst to enlarge the range and quality of care for the area. There was a need for greater involvement of the consultant in the community hospital and with the general practitioner to provide a unified health service for the area.

1808. BODINGTON, M. C. **Provision of a nursing service.** *Nursing Mirror*, London, 1975, Sept. 25, vol. 141, no. 13, pp. 56-58.

The objectives of the nursing service at the Royal Hospital and Home for Incurables, Putney, London, are outlined, together with the special difficulties encountered in meeting them. Of 250 patients at Putney and Brighton, two-thirds are incontinent,

and over one-third suffer from multiple sclerosis. The role of the nurse becomes very different in a hospital for permanent care, from that in an acute hospital; the work is more of a background nature in an organization with a minimal number of rules, so that the patients may have all the independence possible. The nursing staff must also be prepared to carry out many non-nursing duties, and be involved with administration, recruitment and training methods. The average age of patients admitted in 1974 was 53, and there are approximately 30 deaths a year. There are 1.4 patients to each nurse (or 0.7 nurses per patient), 27 full-time State registered and 16 full-time State enrolled nurses for 220 beds in Putney. The average length of service for enrolled or untrained staff is three years. In-service training is seen as of great importance, with emphasis upon the special problems and nursing ethics experienced at the Royal Hospital.

1809. FINKELSTEIN, M. and ROSENBERG, G. **New lifestyle for the aged in a long-term hospital.** *Journal of the American Geriatrics Society*, Baltimore, 1974, Nov., vol. 22, no. 11, pp. 525-527.

At the Maimonides Hospital and Home for the Aged, Montreal, a structured arts and crafts workshop has been set up for long-stay patients. The aim is to break the 'institutionalization' syndrome so prevalent in long-stay patients. A key factor in this project is to raise the standard of work of the patient so that he can ultimately perform as an artisan, sell his own works and thereby earn money and recognition. The patient benefits by the knowledge that he forms part of the working force and that the institution is now the community. Three case studies illustrate the success of the scheme.

CANCER

1810. ELLWEIN, L. B. and KALBERER, J. T. **Optimal locations of cancer centers on the basis of population access.** *Federation Proceedings*, Bethesda, Md., 1975, May, vol. 34, no. 6, pp. 1411-1416.

The United States National Cancer Institute initiated a project in the early 1960s in response to a need for inter-disciplinary cancer research and co-ordinated care for cancer patients. The Institute considered a large number of factors regarding the establishment of comprehensive cancer centres, and believed that the geographical location should ensure that the maximum benefits of the centre should be received by the largest proportion of people. The approach used to assess the number and location of of centres is based upon the adaptation of a mathematical model and a computer program designed for the solution of general 'location-allocation' problems. The objective of the analysis was to minimize costs expressed in terms of transport distance. The population of the United States was divided into distinct areas based on the boundaries of the 435 congressional districts, together with Washington, D.C., and Puerto Rico. The total number of potential centres was calculated by establishing a series of additional centres to complement existing ones. Sixteen sites had already been selected and the remaining series of 21 potential sites was analysed. Travelling distance was determined so that centres should not be more than 1,000 miles away from each congressional district, to be able to serve a population effectively. Since accessibility increases directly with the total number, an analysis was made to establish the point at which population access is offset by the cost of setting up an additional centre.

1811. Cox, S. and Tiffany, R. **A review of cancer nursing services in North America.** *Nursing Mirror*, Sutton, Surrey, 1975, Sept. 25, vol. 141, no. 13, pp. 66-68.

A review was carried out on the methods of nursing cancer in America by the authors, who are members of the Department of Nursing Studies, Royal Marsden Hospital, London and Surrey. They found a striking similarity with interests and problems in Britain; however it was felt that there was a more receptive attitude to change since there were greater developments in nursing care than in Britain. Five aspects of nursing care were examined; (i) planned programmes of training and continuous education for those already trained in this specialty; (ii) the extended role of the nurse in oncology centres; (iii) the role of the nurse as communicator and teacher; (iv) patterns of patient care in hospital and community; and (v) unit administration and deployment of nursing and non-nursing staff.

1812. Sellwood, R. A. and others. **Standards of care. 2. Care of the patient with cancer.** *Nursing Mirror*, Sutton, Surrey, 1975, Oct. 9, vol. 141, no. 15, pp. 53-66.

The second session of a symposium on standards of care organized by the *Nursing Mirror* considered the care of patients with cancer. The five papers dealt with: (i) screening, diagnosis and surgical management; (ii) other methods for the treatment of cancer including palliative, curative and terminal care; (iii) the planning of nursing care for cancer patients; (iv) the giving of care to cancer patients; and (v) community care for cancer patients.

1813. Johansson, H. and others. **Organization of a breast tumour clinic and aspects of data analysis of a clinical material.** *Scandinavian Journal of Social Medicine*, Stockholm, 1975, vol. 3, no. 2, pp. 75-82.

A special breast tumour clinic was established in the Department of Surgery, University Hospital, Uppsala, Sweden, with the aim of making it easier for patients with tumours or suspected tumours of the breast to obtain adequate medical advice and treatment. The waiting time for consultation was less than one week. Close co-operation between doctors responsible for the various diagnostic units made it possible to give quick service and contributed to an efficient use of the resources. The clinic functioned within the framework of the existing medical care facilities, and was run by two surgeons, a pathologist, a radiologist and three cytologists. Special medical records were produced so that the information could be transferred to punch cards for data processing and the information stored in memory banks. An advantage of this system was that examinations could be followed up by statistical analyses of the material. Three recommendations were made: (i) it should be easy and quick to make an appointment; (ii) patients should not need a referral note from their doctor, and the clinics should be widely known; (iii) patients should be concentrated in time and space to ensure a consistent examination procedure, continuity in examination and treatment and a good follow-up system.

CARDIOLOGY

See Abstract No. 1798

UROLOGY

1814. RUBIN, A. L., DAVID, D. S. and STENZEL, K. H. **Effective primary care by the subspecialty center.** *New England Journal of Medicine*, Boston, Mass., 1975, Sept. 18, vol. 293, no. 12, pp. 607-609.

Subspecialty centres are interdisciplinary organizations which attempt to improve patient care by providing continuing care for the group of patients requiring the centre's specialized services. Primary care is thus unavoidably an integral part of the programme. The function, organization and staffing of such centres are described. The Rogosin Kidney Center, New York Hospital-Cornell Medical Center, was established in 1970 to provide such comprehensive care to patients with renal disease. The experience of the centre is outlined, with particular reference to the provision of primary care. The advantages of subspecialty centres and their relationships with other hospital departments and individual physicians are discussed.

SURGERY

See also Abstract No. 1742

1815. SPELLER, C. E. and CLIFF, K. S. **An information system for a surgical unit.** *Health and Social Service Journal*, London, 1975, Sept. 20, vol. 85, no. 4457, pp. 2102-2103.

If there is to be any benefit in monitoring in the National Health Service there must be a common base for information. The authors suggest building up information systems suitable for comparing, on a national basis, individual units with similar units in area and regional authorities. The detailed data needed for a surgical unit's system are discussed. For out-patients these include: (i) number of consultant and out-patient sessions available; (ii) involvement of junior staff in these sessions; (iii) number of new and return patients; (iv) waiting time for an appointment for each consultant; (v) number of patients referred to other departments; and (vi) number of patients placed on waiting lists for admission. The data for in-patients is of a much wider range, and much of it is routinely available from a number of sources. It includes numbers on waiting lists, admissions, average number of beds available, turnover interval, bed days used, proportion of emergencies to planned emergencies, in-patient personal data and theatre use.

1816. TURNER, L. M. **Day surgery for children.** *Nursing Times*, London, 1975, Oct. 2, vol. 71, no. 40, pp. 1592-1593.

The success of day surgery largely depends upon a detailed explanation of the system to both parents and child. In some hospitals day cases are treated as part of the main operating list, and in others, part of a separate day surgery list. However in both cases it is difficult not to upset the child. At the Royal Alexandra Hospital for Sick Children, Brighton, a scheme has been evolved in which pre-operative assessment is carried out in an anaesthetic assessment clinic. The children are selected at the surgical consultant's clinic for day surgery and are accompanied by their parents to the hospital. The parents spend much of the day with the children, before and after the operation, taking them home four or five hours after the operation. The child,

from the time he attends the out-patient department to the time he returns home, has seen familiar faces and has been in a calm atmosphere. Success of the system depends upon detailed explanations to both parent and child. Most mothers welcomed the system since it eliminated a stay away from home of several nights.

THORACIC SURGERY

See Abstract No. 1743

MATERNITY

See also Abstract Nos. 1744, 1774, 1799

1817. GATEWOOD, T. S. and STEWART, R. B. **Obstetricians and nurse-midwives: the team approach in private practice.** *American Journal of Obstetrics and Gynecology*, St. Louis, 1975, Sept. 1, vol. 123, no. 1, pp. 35-40.

The Americus and Sumter County Hospital employed two nurse-midwives to work with the obstetricians who had insufficient time to carry out their gynaecology practice. The hospital serves a population of 16,000 and has 135 beds. In 1973 the teams of nurse-midwife and obstetrician delivered 716 babies. The nurse-midwives delivered 61 per cent of the patients who delivered vaginally. All normal patients had the choice of selecting their accoucheur; the nurse-midwives only deliver the normal routine cases, and all complications are immediately referred to the obstetrician. The nurse-midwives see all patients on their first visit, take their history and examine the patient, referring cases to the obstetrician if necessary. They give instruction on the preparation for childbirth to all patients in a course of six lessons lasting two hours each, attended by all couples. The team approach by the obstetrician and nurse-midwife leads to a greater response by the patient; the preparation classes increase the patient's relaxation and give couples an opportunity to share in the birth of the child. The history of the introduction of nurse-midwives dates back to 1925, but they were only officially admitted into the system of medical care in 1955. The example given by Sweden and the Netherlands should be taken up in the United States, since the best relative neonatal mortality rates are in these countries, and the majority of babies are delivered by nurse-midwives.

DENTISTRY

See Abstract No. 1831

PSYCHIATRY

See also Abstract Nos. 1688, 1694, 1700, 1712, 1719

1818. INGHAM, J. **What sort of security do we need?** *New Psychiatry*, London, 1975, Sept. 25, vol. 2, no. 20, pp. 12-14.

In 1974 the Department of Health and Social Security issued guidance to health authorities on services for the mentally ill and handicapped who, although not dangerous or violent enough for admission to the 'special hospitals', needed an element of

security that psychiatric hospital wards could not provide. Regional units were thought to be the most efficient establishments giving therapeutic value through a sheltered environment. In view of the recommended increase in patients, from the projected 1,000 national beds to 2,000, speed, economy and priority were the main issues of the day. The author questions whether regional units are the answer to the problem, what type and size of unit they should be, whether they should be pilot units, and what the interim arrangements are? A two-storey, small community grouping with separate or linked blocks arranged around a 'village green' with ample residential staff accommodation, concentrating upon rehabilitation is viewed as one of the more humane suggestions in the light of his findings. A plan of a possible model is included.

1819. SPENCER, D. A. **Mental handicap hospitals in the reorganised N.H.S.** *Apex*, Kidderminster, 1975, Sept., vol. 3, no. 2, pp. 20-21.

A survey of hospitals for the mentally handicapped in England, Wales and Scotland revealed 210 hospitals in England and Wales, and 20 in Scotland. The size of the hospital units, and the distribution and location of hospitals, were analysed and trends noted. The majority of hospitals were built in the 1920s and need considerable improvement, having been originally erected for other purposes. The current ideal of small units serving the local population is rarely conformed to, whilst the retention of large rural hospitals remote from the population served is becoming increasingly hard to justify. If services for the mentally handicapped are to be improved, much reorganization will be necessary.

1820. GREAT BRITAIN. DEPARTMENT OF HEALTH AND SOCIAL SECURITY. **Better services for the mentally ill.** (Cmnd. 6233) London, Her Majesty's Stationery Office, 1975, viii, 91pp. £1.35

This paper is presented as a long-term strategic document indicating the general direction which should be taken and the general background against which decisions should be made. It covers: the nature of the problem; developments in services for the mentally ill; team-work in the new pattern of services; the district service; security; housing and employment; children and adolescents; manpower requirements; research and evaluation; and progress towards the new service. An appendix discusses the position of the psychiatric hospitals in the period of transition to the new pattern of service.

1821. COX, R. and others. **Social training in a ward situation.** *Apex*, Kidderminster, 1975, March, vol. 2, no. 4, pp. 8-9.

A programme for training mentally handicapped patients was set up at Monyhull Hospital, Birmingham. The aims of the programme were: (i) to determine the influence of training in four general areas—self help, communication, socialization and occupation; and (ii) to create an opportunity for student nurses to gain practical experience in social education. The 10 patients were selected on a subjective basis, and six student nurses were allocated to the project for three months. The trainee patients were divided into two groups of five, and the trainees, together with the remaining patients, were assessed prior to training. The 10 trainees were reassessed at three-, six- and nine-monthly intervals. Ten of the remaining patients who had received no training were reassessed as a control group at the end of the nine-month period. The training

took place in an area that had been converted to create a home orientated atmosphere. After training the results showed that the competence of the trainee group had increased by 46 per cent over the control group. A comparison of the results shows that occupational skills, e.g. cookery, cleaning, increased by the greatest amount. Problems developed during the course concerning planning and organization, but this was the result of a conflict between the hospital environment and the up-graded home environment used for training.

1822. MARCUS, A. M. and others. **Primary therapist project on an inpatient psychiatric unit.** *Canadian Nurse*, Ottawa, 1975, Sept., vol. 71, no. 9, pp. 30-33.

A project in which non-medical therapists were given a primary therapy role was set up in the 21-bed, psychiatric in-patient service in the Health Sciences Centre of the University of British Columbia. Four factors influenced the development of the system: (i) the nurses' dissatisfaction with their role; (ii) the blurred nature of the nursing role; (iii) the lack of psychiatric residents to carry out the service commitments; and (iv) the need for individuals to be given help at a much earlier stage of their illness. The role of the nurse therapist is described. The new project officially began in February 1974, and as a result of the findings several recommendations were made, amongst which were: (i) the need for greater support from the nursing staff of the hospital for the primary therapist; (ii) more time and consideration needed to be given to the initial screening of psychiatric patients by the therapists; and (iii) the need for the cost of nursing replacements for nurses learning the primary therapy role to be secured through additional funding.

1823. TOWELL, D. **Understanding psychiatric nursing: a sociological study of modern psychiatric nursing practice.** London, Royal College of Nursing, 1975, 225pp. £2.75

This book reports a study of psychiatric nursing undertaken in a progressive psychiatric hospital between 1967 and 1971. The volume is in five parts: (i) introduction, which discusses the questions at issue and describes the study and its setting; (ii) nursing on the admission wards; (iii) nursing on the geriatric wards; (iv) nursing in a therapeutic community; and (v) conclusion. An extensive bibliography is included.

1824. MILLER, D. W. **Mental Health Act 1959: the mentally disordered patient in hospital.** *New Law Journal*, London, 1975, Sept. 11, vol. 125, no. 5716, pp. 884-886; Sept. 18, vol. 125, no. 5717, pp. 920-922; Sept. 25, vol. 125, no. 5718, pp. 939-941.

The changes in the law relating to compulsory admission introduced by the Mental Health Act 1959 are outlined. Some of the provisions of the Act are discussed, with particular reference to how they work in practice.

1825. SLADE, P., LAFITTE, E. and STANLEY, R. J. **Drama with subnormal adults: an evaluation of work in a psychiatric hospital.** Birmingham, Educational Drama Association, 1975, 21pp. £0.30

This pamphlet describes a pilot experiment with adult patients in a small hospital for the mentally handicapped, together with an assessment of its effect on the patients who took part. It is shown that the use of drama therapy helped patients to relate to others and to respond at a higher level of performance. An outline for a simple drama therapy unit is included.

1826. GOODACRE, R. H. and others. **Hospitalization and hospital bed replacement.** *Canadian Psychiatric Association Journal*, Ottawa, 1975, Feb., vol. 20, no. 1, pp. 7-14.

The Vancouver Home Treatment Project for psychiatric patients was designed: (i) to compare home and hospital treatment in terms of bed replacement, patient progress and service costs; (ii) to compare home and hospital care in terms of patient functioning and family disruption; and (iii) to develop a screening instrument for selecting patients who would benefit from home care. This paper reports a study to explore the cost-effectiveness of home treatment. The results show that, apart from sparing some initial admissions, home treatment shows no effect on hospital stay (initial and total during one year) or re-admissions for a severely ill psychiatric hospital cohort.

1827. **The development of a behaviour assessment and treatment unit.** *Apex*, Kidderminster, 1975, March, vol. 2, no. 4, pp. 16-17.

Lea Hospital, Bromsgrove, Warwickshire, has developed a behaviour assessment and treatment unit in an attempt to develop ward programmes in self-help and social competence for mentally handicapped children. The unit is staffed by a multi-disciplinary team of nurses, psychologists, a teacher and a play therapist. The involvement of parents of children living at home is seen as essential, the unit gives the training in basic techniques, and members of the unit visit the home to give follow-up support. The unit is not the sole site for therapy, and care must be taken to see that it is not the only place where behaviour modification therapy can take place. It is useful, however, for the treatment of individual problems which have proved intractable in a ward or home situation. Other functions of the unit are: (i) to provide in-service training and full-time courses for staff; and (ii) to provide training for parents to help them overcome problems presented by children at home.

1828. OSWIN, M. **The question of abandonment.** *Apex*, Kidderminster, 1975, March, vol. 2, no. 4, pp. 6-7.

Department of Health and Social Security memorandum HM(72)2 *Children in hospital: maintenance of family links and prevention of abandonment* is frequently being used as a criticism against parents who, through social problems, have had to allow their handicapped children to live in hospital. A lack of community facilities is seen as the main factor. Without domiciliary support or community homes, parents become worn down physically and emotionally so that the admission of the child becomes inevitable. The reasons for not visiting the child are: (i) physical impossibility; (ii) lack of transport; (iii) lack of money for fares; (iv) attitude of hospital staff; and (v) general appearance of hospital. In conclusion, it is suggested that the community health councils should be responsible for the development of the mental handicap health teams in the district.

1829. WIMBUSH, M. **Granting a new lease of life.** *New Psychiatry*, London, 1975, Oct. 9, vol. 2, no. 21, pp. 12-14.

The New Lease project set up by Warlingham Park Hospital, Surrey, is a rehabilitation programme designed to combat the effect of institutionalization, and to prepare as many as possible of the long-stay residents of over 65 for life in the community.

It is hoped that after rehabilitation many of the candidates will be able to spend their old age in an old people's home or a home for the elderly mentally infirm. The New Lease scheme is run by a senior occupational therapist, under the guidance of the consultant psychiatrist in charge of geriatrics, assisted by aides, students and volunteers. Potential candidates are assessed for their physical and mental state, their concentration, memory and comprehension and their ability to look after themselves. Groups of eight patients are worked with for two months and then reassessed, after which the successful candidates are put into a 'maintenance' group, which ultimately places their name on the waiting list for an old people's home. Some methods of combating institutionalization are: (i) taking a group of nine patients and four helpers to a pub for coffee; (ii) daily, groups of five patients are selected for a coffee party in one of the rooms in the ward; (iii) once a week four patients cook and eat lunch with two guests; (iv) community singing; and (v) outings. The problems arising from the New Lease project are; (i) the maintenance group is now larger than the number of places offered in old people's homes; (ii) the shortage of staff to run the scheme. The argument in favour of similar projects is that patients now take a pride in their appearance and are cheerful and talkative, having something to which to look forward.

1830. KIMBERLIN, G. C. **Deafness is not our only problem.** *ExChange*, Sacramento, 1975, May/June, vol. 3, no. 2, pp. 3-6.

Deafness does not preclude mental and emotional problems; a growing awareness of this fact has led to the establishment of mental health programmes specifically for the deaf and their families. One such programme has been developed at Resthaven Psychiatric Hospital, California. It includes: (i) in-patient treatment; (ii) day treatment with a family orientation; (iii) out-patient treatment for persons whose work schedules are incompatible with day treatment hours; (iv) a home visit/after-care team; and (v) a rehabilitation programme consisting of work evaluation and preparation for work. Services for the deaf at Resthaven cut across every department in the hospital; staff skilled in sign language are assigned to each department and their work is co-ordinated by the director of the programme. The deaf patient is thus allowed the same wide choice of activities as his hearing counterpart. The programme has been a success, but is still inadequate to meet the needs of all the deaf and their families in the area served by the hospital, so expansion and development is planned.

1831. FLOWER, E. A. **Dental care in subnormality hospitals—a team approach.** *Apex*, Kidderminster, 1974, Dec., vol. 2, no. 3, pp. 30-310 1975, March, vol. 2, no. 4, pp. 25-26.

The first part of this paper outlines problems of dental care in hospitals for the mentally handicapped and deals particularly with toothbrushes and the use of fluorides. Although the dental surgeon, by reason of his training and experience, can act as adviser, co-ordinator and main provider of dental treatment for the mentally handicapped, the roles of the nurse, dental hygienist, doctor and other paramedical services are most important. The part that each can play in a team approach to oral health is described.

1832. SMITH, G. **Institutional dependence is reversible.** *Social Work Today*, Birmingham, 1975. Oct. 16, vol. 6, no. 14, pp. 426-428.

At the Old Manor Hospital, Salisbury, the number of patients considered suitable

for discharge was considerably larger than the number of available beds offered by the local authority in residential homes. The majority of the patients not receiving psychiatric treatment were over 60 years of age and were not considered capable of looking after themselves in supervised flats or group homes as they needed all the services usually provided for the elderly in their homes. In 12 months over 100 patients were discharged to become a member of a family to which they were not related. The financial backing for the scheme came from local authorities, social security, charitable trusts and the patients' own capital, if any. The inter-disciplinary group responsible for the scheme included a psychiatrist and a social worker who interviewed every patient individually. The result of the scheme has been to dispel institutionalization and to reintegrate patients into the community, many of whom had been in hospital for over 45 years.

1833. DUNN, A. **Hospital land.** *Nursing Times*, London, 1975, Nov. 13, vol. 71, no. 46, pp. 1804-1806.

A report published by MIND, the Campaign for the Mentally Handicapped, and the Spastics Society, titled *Hospital Land, a resource for the future*, argues that unless alternative sources of revenue are found the chances of housing as many as possible of the mentally ill and handicapped will remain very low. The authors suggested two solutions: (i) sell off surplus hospital land with the proceeds returning to neglected areas of mental handicap and illness; and (ii) whole hospitals should be closed and the land sold using the proceeds to house the patients in community hostels which need not be any more expensive to run. It is estimated that hospitals for the mentally handicapped occupy 25,000 acres, although much of the land is not worth selling. Various hospital grounds are examined (Leybourne Grange Hospital, Storthes Hall Hospital and Turner Village Hospital) emphasizing the problems of selling land. In many areas there is also an inability on the part of the district to earmark profits for a particular project. These and various other factors will have to be considered before any decision can be made on hospital land.

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